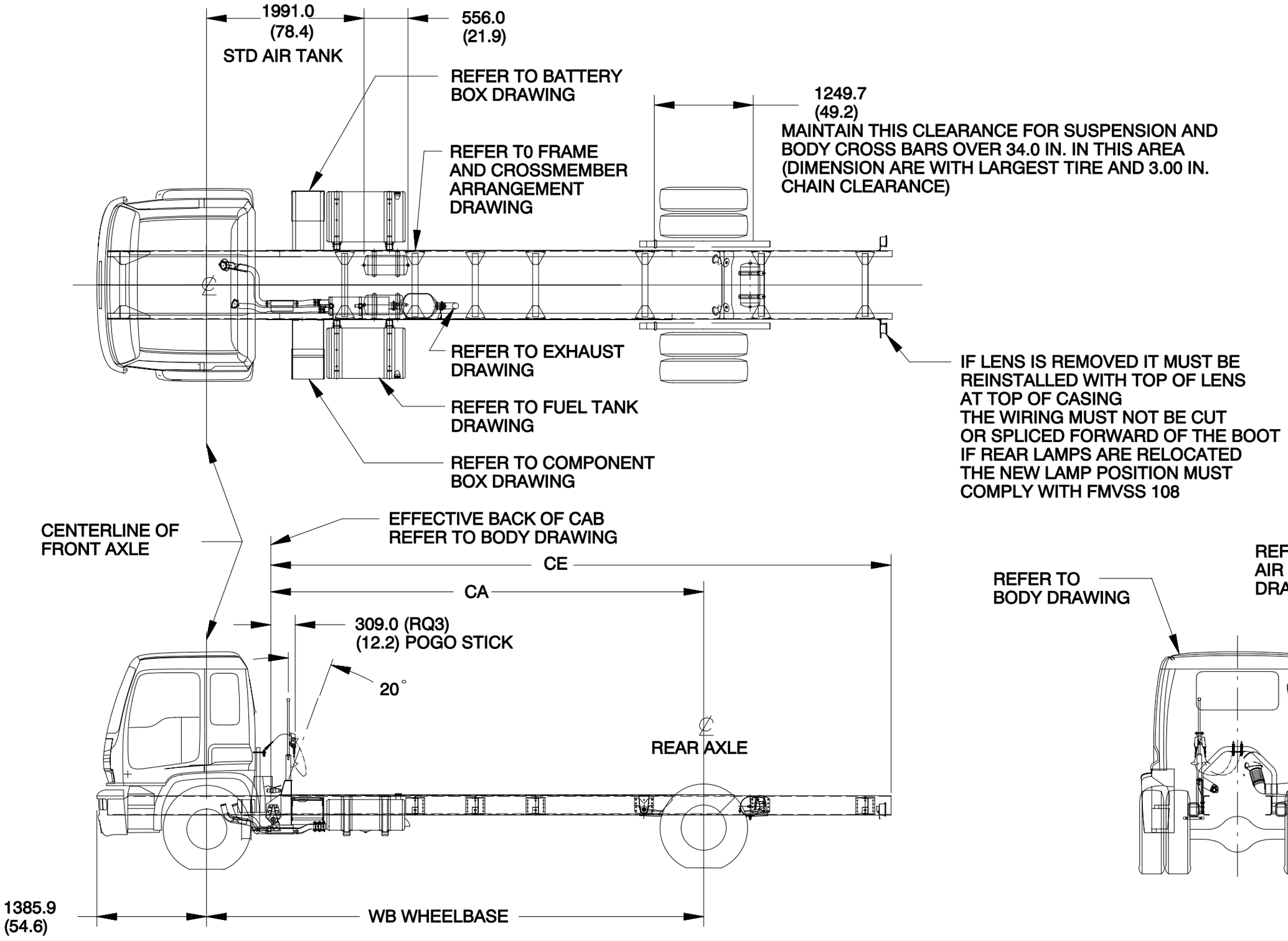
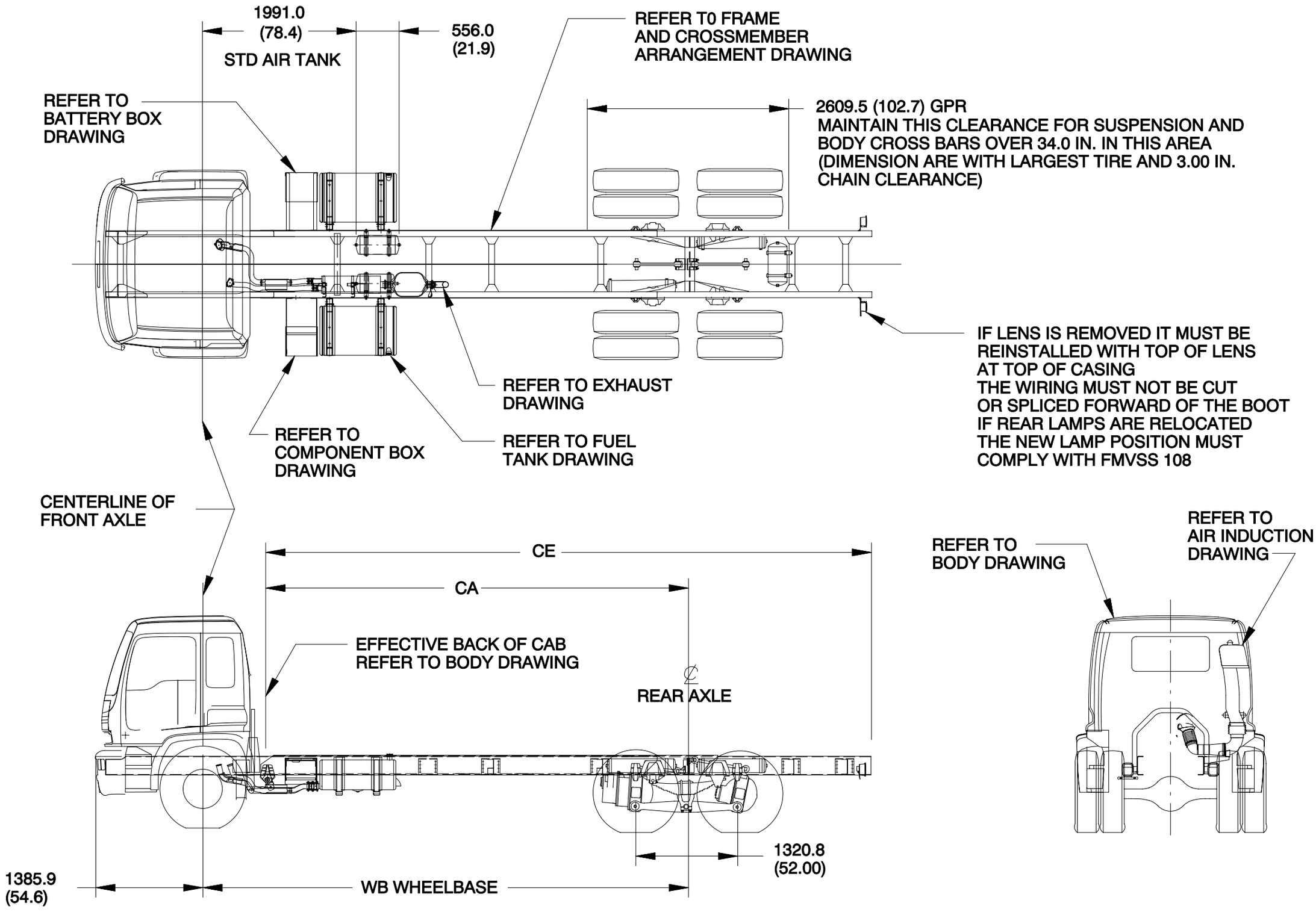
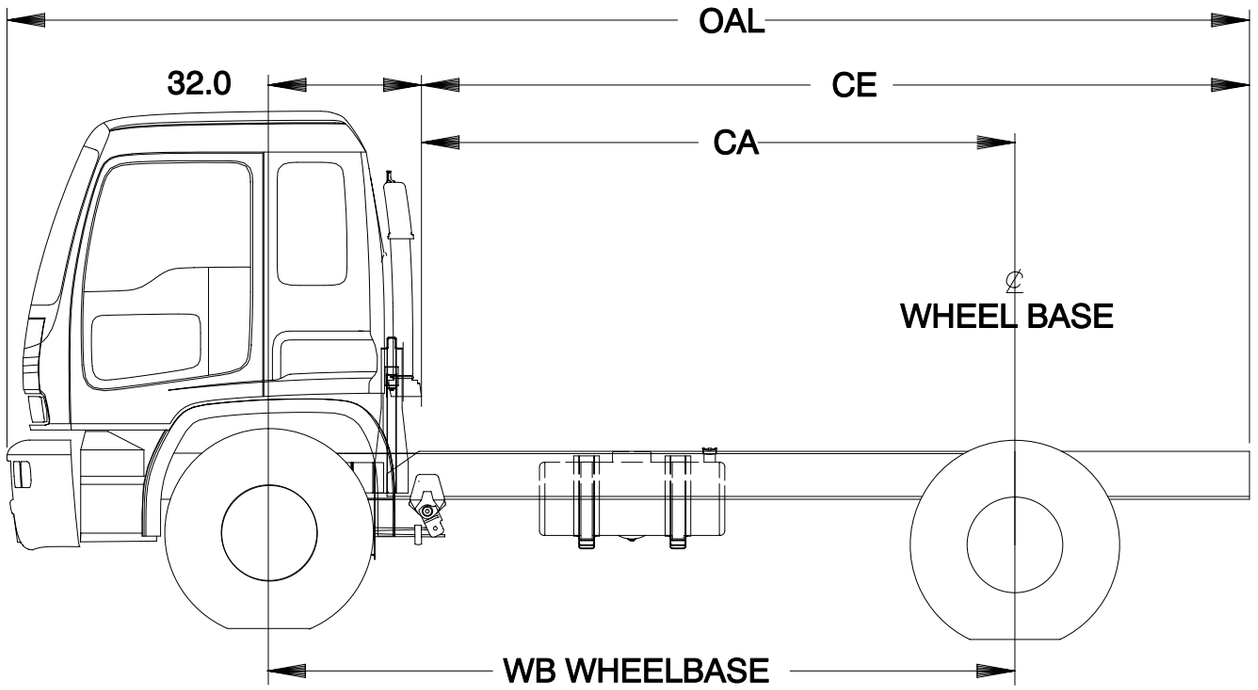
F6/7B042 General Arrangement


1991.0
(78.4)
STD AIR TANK
556.0
(21.9)
REFER TO BATTERY BOX DRAWING
REFER T0 FRAME AND CROSSMEMBER ARRANGEMENT DRAWING
1249.7
(49.2)
MAINTAIN THIS CLEARANCE FOR SUSPENSION AND BODY CROSS BARS OVER 34.0 IN. IN THIS AREA (DIMENSION ARE WITH LARGEST TIRE AND 3.00 IN. CHAIN CLEARANCE)
REFER TO EXHAUST DRAWING
REFER TO FUEL TANK DRAWING
REFER TO COMPONENT BOX DRAWING
IF LENS IS REMOVED IT MUST BE REINSTALLED WITH TOP OF LENS AT TOP OF CASING
THE WIRING MUST NOT BE CUT OR SPLICED FORWARD OF THE BOOT
IF REAR LAMPS ARE RELOCATED THE NEW LAMP POSITION MUST COMPLY WITH FMVSS 108
CENTERLINE OF FRONT AXLE
EFFECTIVE BACK OF CAB REFER TO BODY DRAWING
CE
CA
309.0 (RQ3)
(12.2) POGO STICK
20°
REAR AXLE
1385.9
(54.6)
WB WHEELBASE
REFER TO BODY DRAWING
REFER TO AIR INDUCTION DRAWING

F7B064 General Arrangement



F6/7B042 Body Payload Weight Distribution



F6/7B042

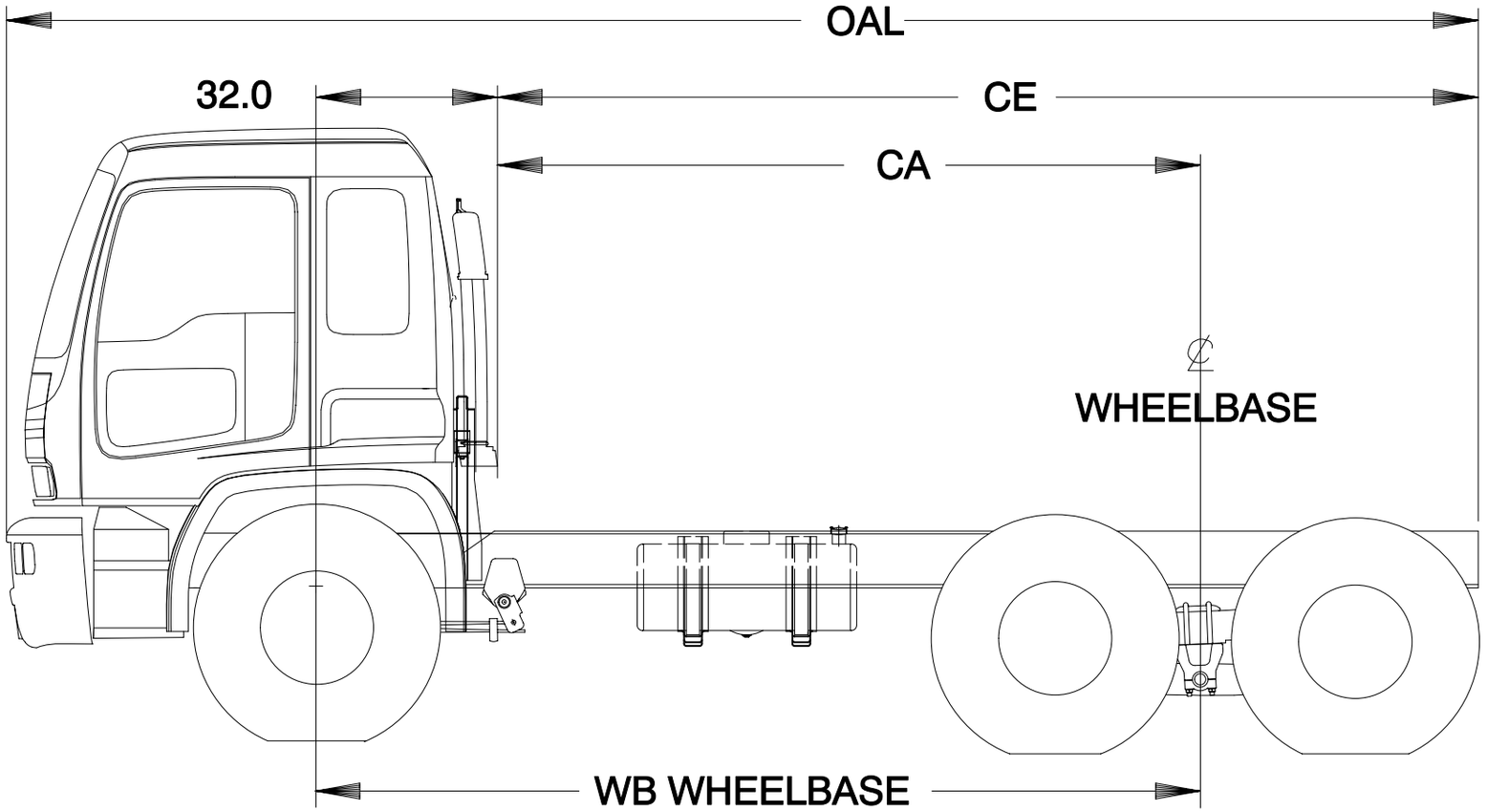
NOTES:
* PERCENTAGES ALLOWED FOR 3" CB (CAB TO BODY CLEARANCE) AND ARE BASED ON EVEN DISTRIBUTION OF WEIGHT (FORMULA: CA–CB–1/2BL/WB CGA OR % FRONT AXLE)

** EFFECTIVE LENGTH IN WHICH FRONT AXLE LOAD IS 6% OR LESS IS NORMALLY POOR DISTRIBUTION

F6/F7BO42 BODY–PAYLOAD WEIGHT DISTRIBUTION (% FRONT / % REAR) *

DIMENSIONS (IN)				** BODY LENGTHS (FT)												
WHEELBASE	CA	CE	OAL	10	12	14	16	18	20	22	24	26	28	30	32	34
EC7/134	102	143.7	225.0	TRACTOR ONLY												
FQT/140	108	177.2	240.9	32/68	24/76	15/85	6/94									
EG5/158	126	219.3	276.5		32/68	25/75	17/83	9/91								
EH8/170	138	231.3	288.5			30/70	23/77	16/84	9/91							
EK8/188	156	249.3	330.5				30/70	24/76	18/82	11/89						
EM2/200	168	261.3	342.5					29/71	23/77	17/83	11/89					
FPL/218	186	279.3	360.5						29/71	23/77	18/82	12/88	7/93			
EQ8/233	201	294.3	375.5							28/72	23/77	18/82	13/87	8/92		
ES5/248	216	309.3	390.5								28/72	23/77	18/82	13/87	8/92	

F7B064 Body Weight Payload Distribution



F7B064

NOTES:

* PERCENTAGES ALLOWED FOR 3" CB (CAB TO BODY CLEARANCE) AND ARE BASED ON EVEN DISTRIBUTION OF WEIGHT (FORMULA: CA–CB–1/2BL/WB CGA OR % FRONT AXLE)

** EFFECTIVE LENGTH IN WHICH FRONT AXLE LOAD IS 6% OR LESS IS NORMALLY POOR DISTRIBUTION

F7BO64 BODY–PAYLOAD WEIGHT DISTRIBUTION (% FRONT / % REAR) *

DIMENSIONS (IN)				** BODY LENGTHS (FT)								
WHEELBASE	CA	CE	OAL	16	18	20	22	24	26	28	30	32
EK8/188	156	249.3	330.5	30/70	24/76	18/82	11/89					
EM2/200	168	261.3	342.5		29/71	23/77	17/83	11/89	6/94			
FPL/218	186	279.3	360.5			29/71	23/77	18/82	12/88	7/93		
EQ8/233	201	294.3	375.5				28/72	23/77	18/82	13/87	8/92	
ES5/248	216	309.3	390.5					28/72	23/77	18/82	13/87	8/92

F6/7B042 GCW Rating Limits

F6/7B042

MAXIMUM APPROVED GCW FOR ENGINES

RPO	ENGINE	MAXIMUM GCW LBS
LSO	6.0 L	G C W MAY BE LIMITED BY PERFORMANCE RESTRICTIONS BASED ON TRANSMISSION,AXLE, AND VEHICLE CONFIGURATION
LXO	6.6 L	
LN4	7.1 L	

MAXIMUM APPROVED GCW FOR AXLES

RPO	REAR AXLE SINGLE	1 = SINGLE SPEED 2 = TWO SPEED	MAXIMUM GCW LBS
HNA	EATON 23105S 23,000	S	105,000
HPG	EATON 22060S 22,000	S	65,000
HPH	EATON 22060T 22,000	T	65,000
HPK	EATON 19060S 19,000	S	55,000
HPM	EATON 19060T 19,000	T	55,000
HPP	EATON 21060S 21,000	S	65,000
HPQ	EATON 23080S 23,000	S	70,000
HWY	EATON 19050S 16,900	S	50,000
HZT	EATON 19050T 17,850	T	50,000
HZW	EATON 19050S 17,850	S	50,000
H08	DANA 3150–S 15,000	S	40,000
H10	EATON 15040S 15,000	S	40,000
H11	EATON 19050S 19,000	S	50,000
H15	EATON 21060T 21,000	T	65,000
H20	EATON 23080T 23,000	T	70,000

CONTACT FACTORY FOR DATA ON ENGINES AND TRANSMISSIONS NOT LISTED

AIR BRAKE MODELS ONLY MAXIMUM APPROVED GCW FOR TRANSMISSIONS

RPO	TRANSMISSION	MAXIMUM GCW LBS
MF1	AT545	30,000
MKO	FS6305A	74,000
MLO	FS6305B	74,000
MMO	FS5306	45,000
MNK	MD3060P	80,000
MNZ	MD3560P	80,000
MPU	FS5205A	45,000
MNC	FS5205B	45,000
MP8	MD3060P	80,000
MSC	FS4205B	45,000
MTH	RT7608LL	80,000
MTP	MD3560P	80,000
MUT	RT6609	74,000
MWK	RT8609	80,000
MWO	FS6306	60,000
MT9	AT542	22,050
MW4	FS8206A	74,000
M54	ISUZU	

HYDRAULIC BRAKE MODELS ONLY MAXIMUM APPROVED GCW FOR TRANSMISSIONS

RPO	TRANSMISSION	MAXIMUM GCW LBS
MF1	AT545	30,000
MKO	FS6305A	34,000
MLO	FS6305B	34,000
MMO	FS5306	34,000
MPU	FS5205A	38,000
MNC	FS5205B	45,000
MSC	FS4205B	30,000
MWO	FS6306	34,000
MT9	AT542	22,050
MW4	FS8206A	74,000
M54	ISUZU	

F7B064 GCW Rating Limits

F7B064

MAXIMUM APPROVED GCW FOR ENGINES

RPO	ENGINE	MAXIMUM GCW LBS
LXO	6.6 L	G C W MAY BE LIMITED BY PERFORMANCE RESTRICTIONS BASED ON TRANSMISSION,AXLE, AND VEHICLE CONFIGURATION

MAXIMUM APPROVED GCW FOR AXLES

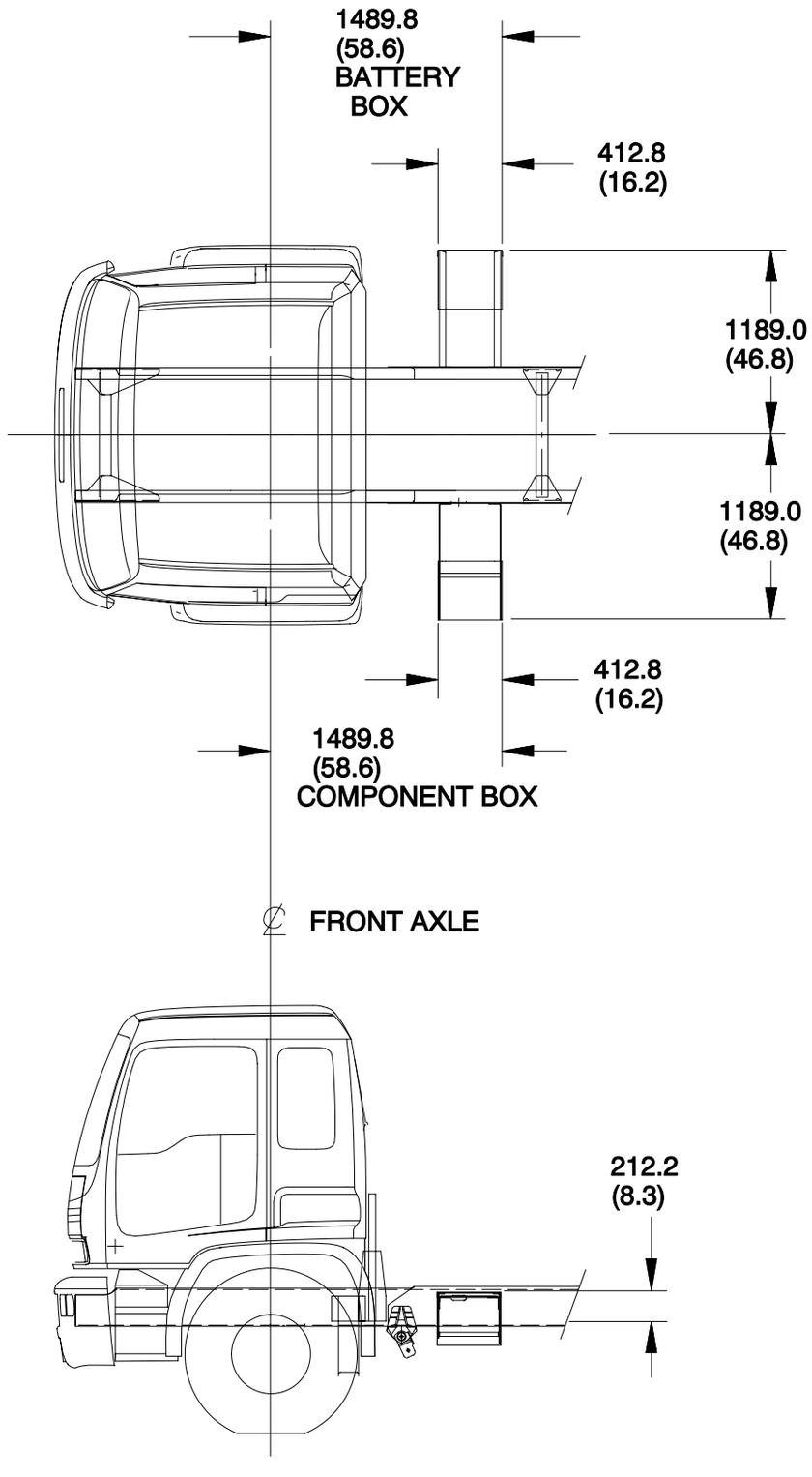
RPO	REAR AXLE TANDEM	1 = SINGLE SPEED 2 = TWO SPEED	MAXIMUM GCW LBS	MAXIMUM GVW LBS
HPE	EATON DS404	1	40,000	110,000

CONTACT FACTORY FOR DATA ON ENGINES
AND TRANSMISSIONS NOT LISTED

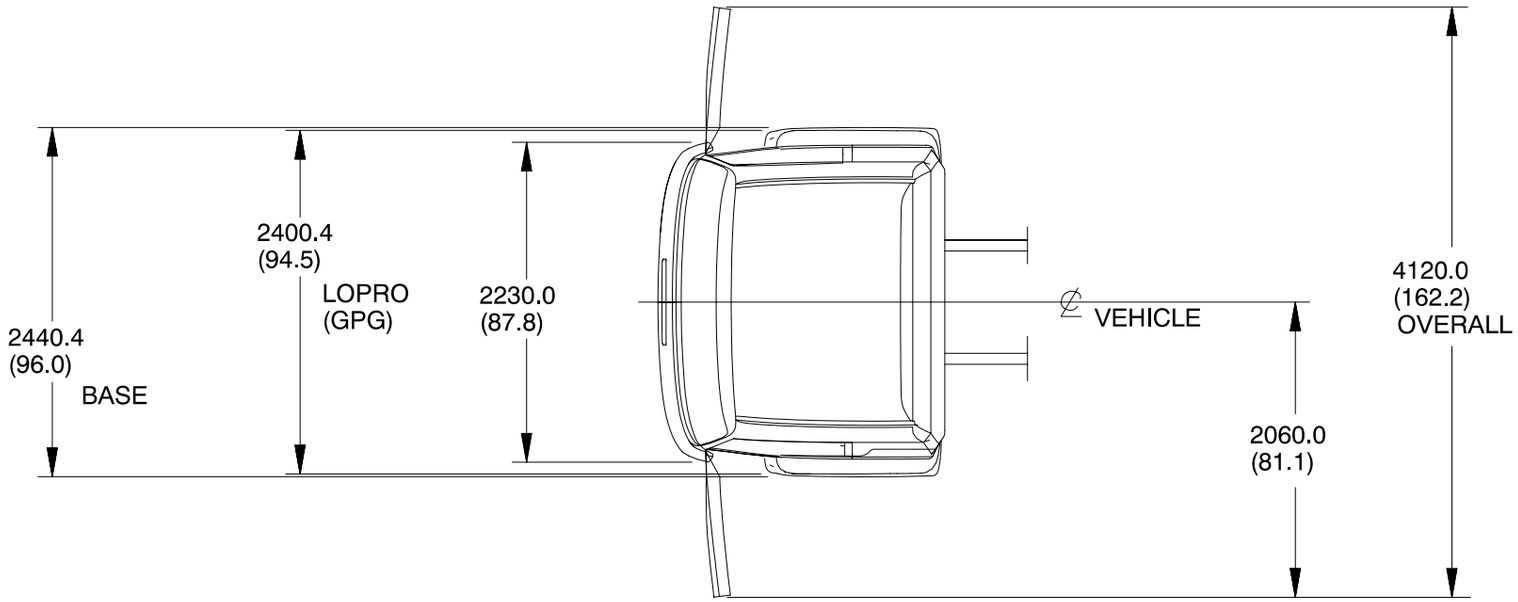
AIR BRAKE MODELS ONLY
MAXIMUM APPROVED GCW FOR TRANSMISSIONS

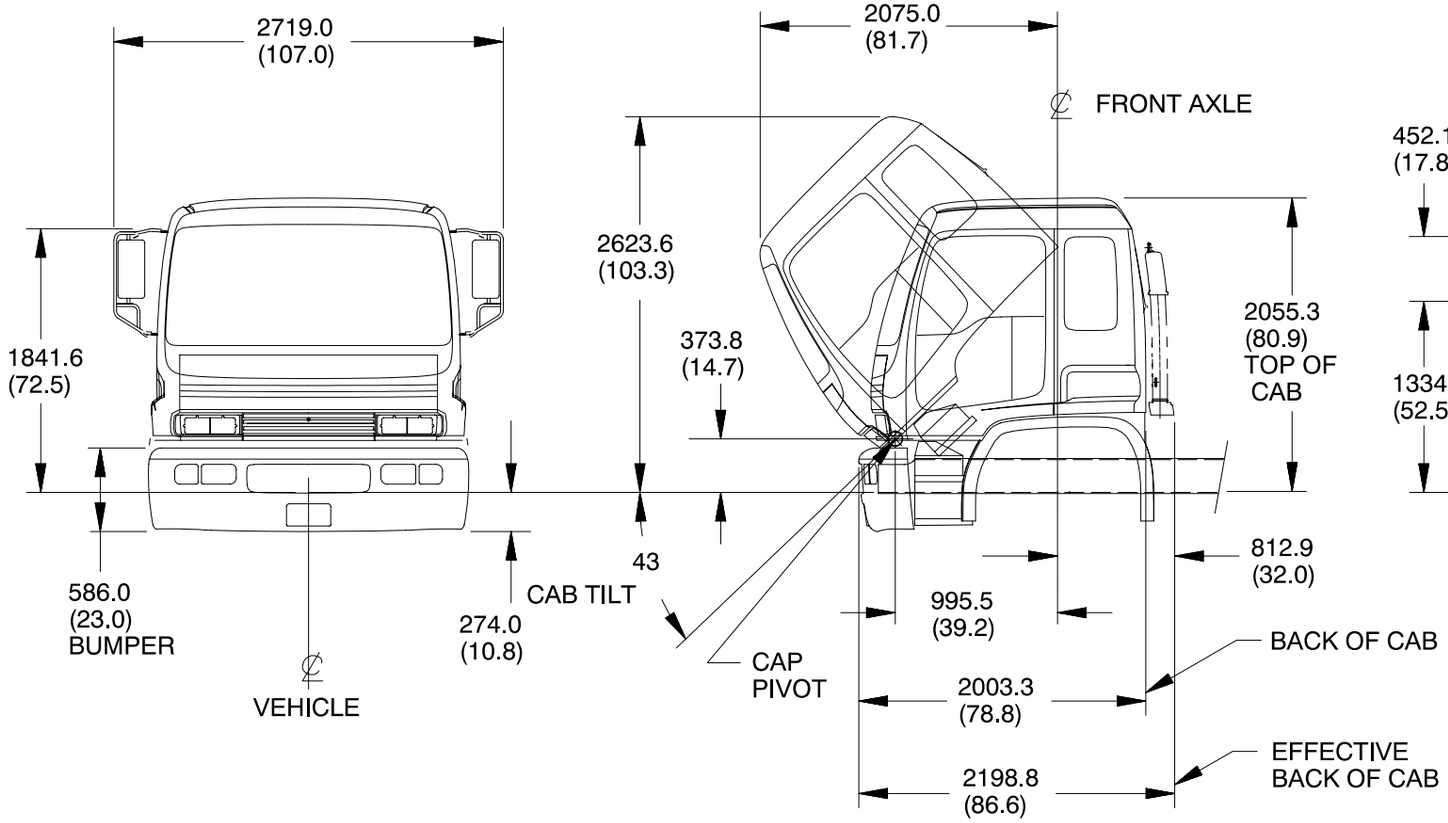
RPO	TRANSMISSION	MAXIMUM GCW LBS
MNK	MD3060P	80,000
MNZ	MD3560P	80,000
MTH	RT7608LL	80,000
MUT	RT6609	74,000
MWK	RT8609	80,000
MWO	FS6306	60,000
MW4	FS7206A	74,000

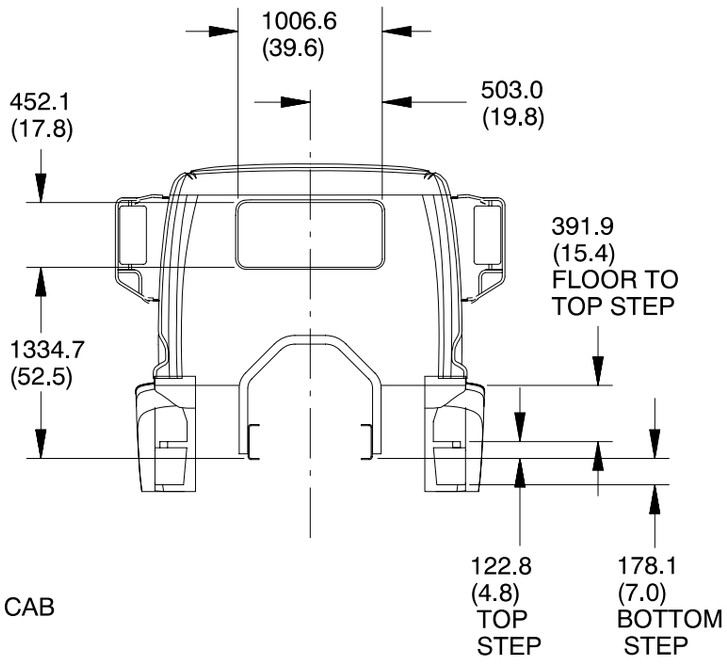
F6/7B000 Component/Battery Box Locations



F6/7B000 Body Exterior

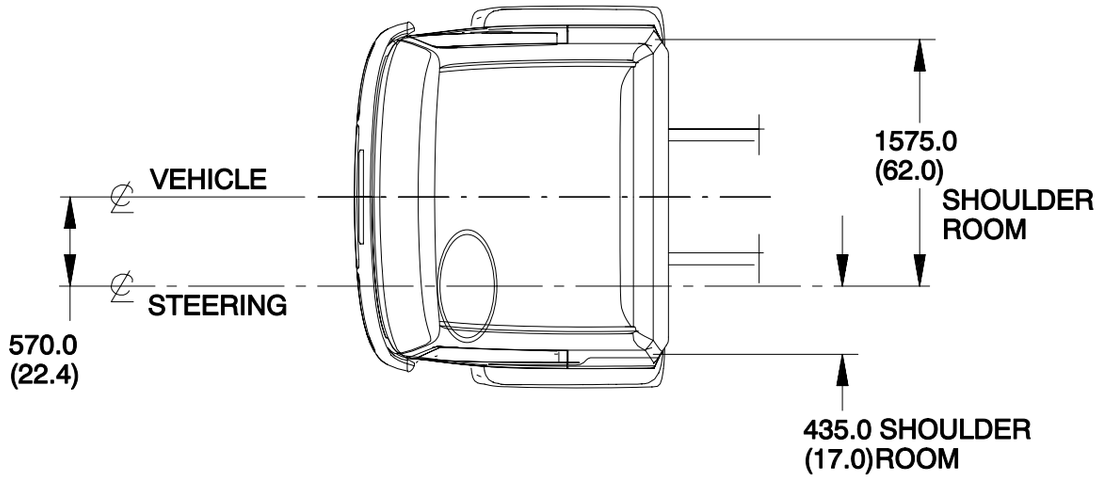


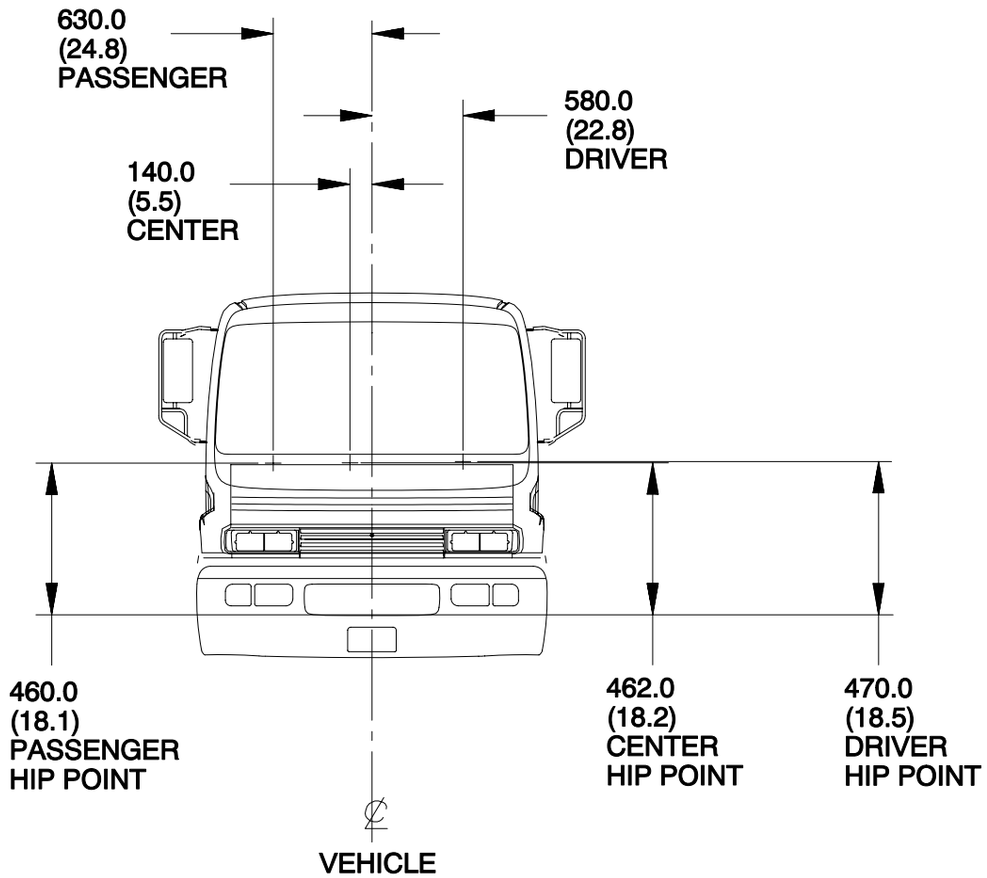


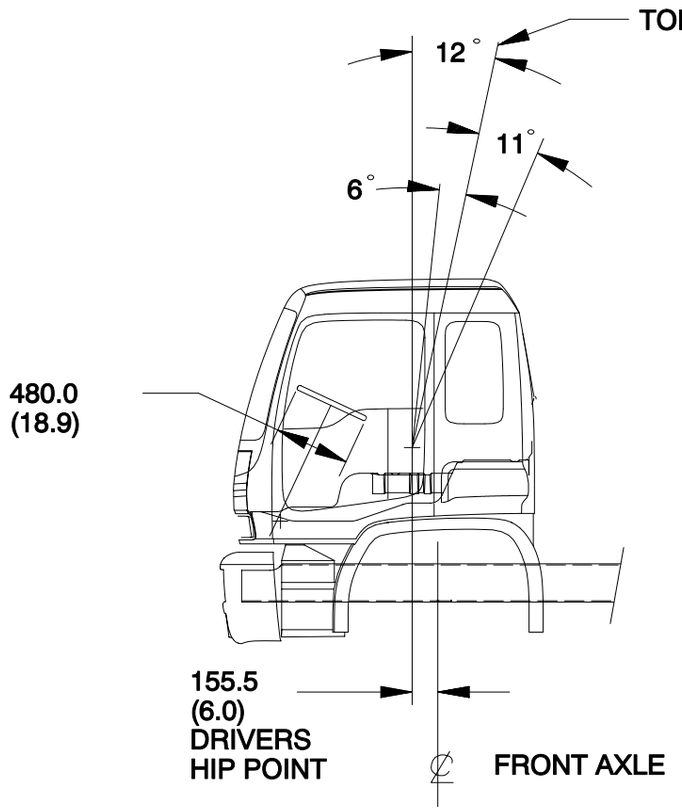


NOTE:
ALL VERTICAL DIMENSIONS
ARE FROM THE INSIDE
BOTTOM FLANGE OF FRAME

F6/7B000 Cab Interior







NOTE:
ALL VERTICAL DIMENSIONS
ARE FROM THE INSIDE
BOTTOM FLANGE OF FRAME

Frame Hardness Specification

- Midland Steel purchases hot rolled steel exclusively for GMC siderails and reinforcements. That steel is straightened, (Shot Blasted), levelled and cut to length in a seperate shot blast building before it is sheared to width, for blanking and forming. The shot plasting imparts a rough surface texture to the steel which is retained in the 50 and 80 Ksi rails.
- The 110 Ksi rails are first shot blasted then induction heat treated and subsequently shot blasted which in turn imparts a different surface roughness to the rails reinforcement.
- As you are aware, the common principle in the “Rockwell” and “Brinell” instruments used to measure hardness is the indentiation of the subject surface by a hard object. The difference between the two is that the “Rockwell” instrument utilizes a diamond pyramid, whereas the “Brinell” instrument uses a tungsten carbide ball to indent the surface; and that the “Rockwell” is used on a smooth/polished surface whereas the “Brinell” is used on a uneven surface. With the above in mind, not the data measured in Brinell Hardness Numbers (BHN).
- The 50 Ksi yield material (SAE J1392 050XF) is in the 135–170 BHN range.
- The 80 Ksi yield material (SAE J1392 080XLF) is in the 217–235 BNH range.
- The 110 Ksi yield material (SAE J1527 quenched and tempered) is in the 269–331 BHN range.

T–Series Frame Material and Physical Properties

	Frame Side Rails or “L” Reinforcements		
	Frame RPO FD0	**Frame RPO FD5**	**Frame RPO F03**
Material Steel No. or Type	SAE J1392 (Grade 50)	SAE J1392 (Grade 80)*	H.T. SAE 1027
Physical Properties Minimum Tensile or Ultimate Strength (lbs. per sq. in.)	60,000	95,000 (125,000 Rated)	125,000
Minimum Yield Strength (lbs. per sq. in.)	50,000	80,000 (110,000 Rated)	110,000
Minimum Elongation in 2 Inches	22%	14%	12%
Weldability	Permitted	Permitted	Not Permitted
Resisting Bending Momemt (RBM) (Rated Yield Strength x Section Modulus)	50,000 x S.M. (See Next Chart)	*110,000 x S.M (See Next Chart).	110,000 x S.M. (See Next Chart)

* Grade 80 is rated equivalent to Heat Treated SAE 1027

T–Series Frame Strength and Dimensions

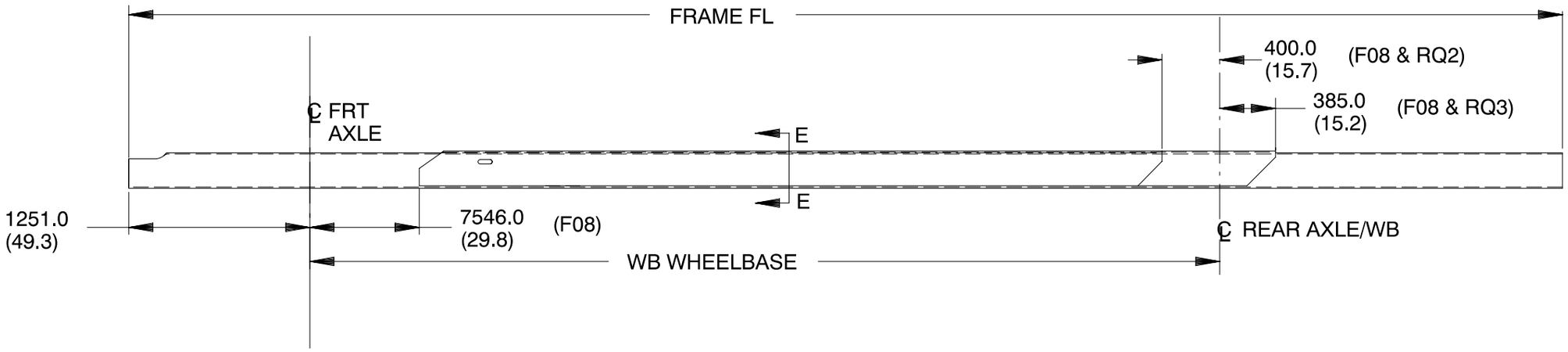
	Frame Side Rails or "L" Reinforcements		
	Frame RPO FD0	**Frame RPO FD5 & F08**	**Frame RPO F03 & F08**
Side Rail Material (Steel)	SAE J1392 (-050XLK)	SAE J1392 (-080XLF)	H.T. SAE 1027 (Heat-Treated)
Side Rail Section Outside Depth-in. (mm)	9.49 (241)	9.65 (245)	9.8 (249)
Flange Width-in. (mm)	3.00 (76)	3.00 (76)	3.00 (76)
Material Thickness-in. (mm)	0.24 (6)	0.315 (8)	0.394 (10)
Section Modulus-in.^{3}	9.58	12.53	16.0
Rated RBM	479,000	1,378,300	1,760,000
Optional Reinforcement-RPO	N/A	F08	F20
Type F6B042 F7B042 F7B064	N/A	Invert "L" F08 length to front of rear spring hanger to rear spring front hanger	Invert "L" F08 length to front of rear spring hanger to rear spring front hanger
Material Thickness-in. (mm)	N/A	.24 (6)	.24 (6)
Combined Section Modulus-in.^{3}	N/A	20.36	23.56
Rated Combined RBM*	N/A	2,239,600	2,591,600

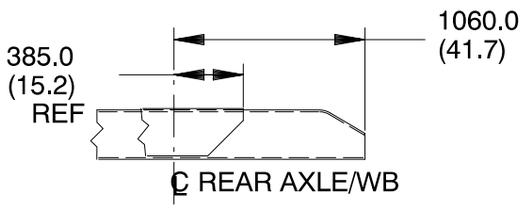
* Grade 80 is rated equivalent to Heat Treated SAE 1027

110 Heat Treated Versus 80K HSLA

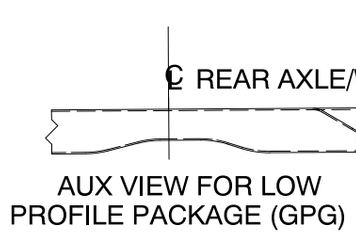
GM truck is the only major OEM to offer 80K HSLA material on all T-Series. This offering is based on fatigue testing which shows equivalency to heat treated steel. Frames fail in fatigue, not yield, and therefore the materials are equivalent with respect to service life.

F6/7B042

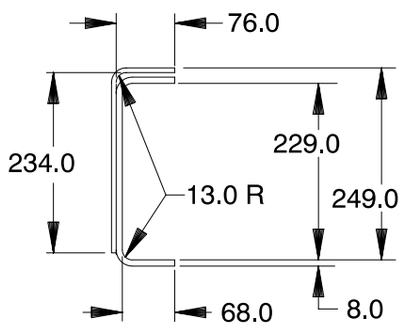




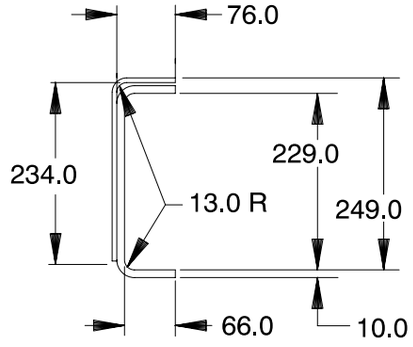
RAIL END CONFIGURATION FOR
FRAME (FD5/F03) & REINFORCEMENT
(F08) & TRACTOR (RQ3)



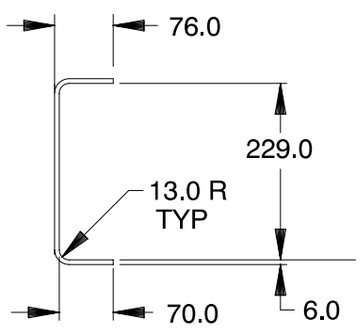
AUX VIEW FOR LOW
PROFILE PACKAGE (GPG)



SECTION E–E
FRAME (FD5) &
REINFORCEMENT (F08)



SECTION E–E
FRAME (F03) &
REINFORCEMENT (F08)

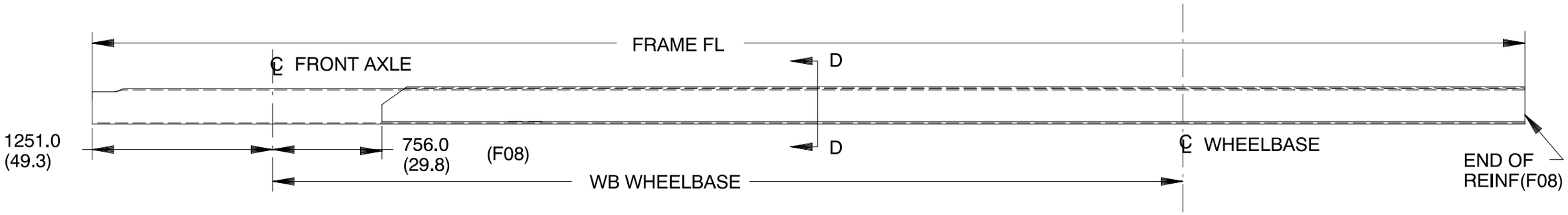


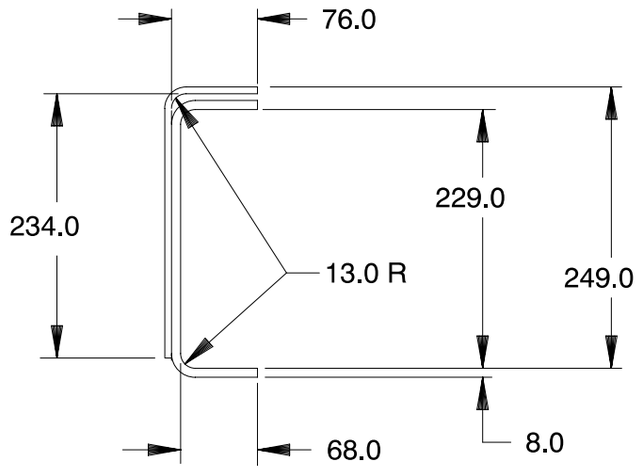
SECTION E–E
FRAME (FD0)

F6/7B042 Single Axles

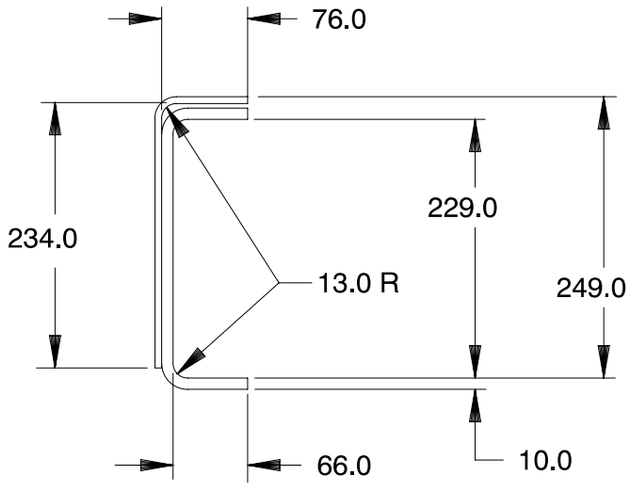
MODEL	WHEELBASE	FRAME	FRAME REINF	FRAME FL W/RQ2	FRAME FL W/RQ3
F6B042 F7B042	EC7 3404 (134.0)	FD0/FD5	F08	———	5715.0 (225.1)
	FQT 3557 (140.0)	FD0	F08	6118.0 (240.9)	———
		FD5			
		F03			
	EG5 4014 (158.0)	FD0	F08	7023.0 (276.5)	———
		FD5			
		F03			
	EH8 4319 (170.0)	FD0	F08	7328.0 (288.5)	———
		FD5			
		F03			
	EK8 4776 (188.0)	FD5	F08	8375.0 (330.5)	———
		F03			
	EM2 5081 (200.0)	FD5	F08	8700.0 (342.5)	———
		F03			
	FPL 5538 (218.0)	FD5	F08	9157.0 (360.5)	———
		F03			
	EQ8 5919 (233.0)	FD5	F08	9538.0 (375.5)	———
		F03			
	ES5 6300 (248.0)	FD5	F08	9919.0 (390.5)	———
		F03			

F7B064 Tandem Axle





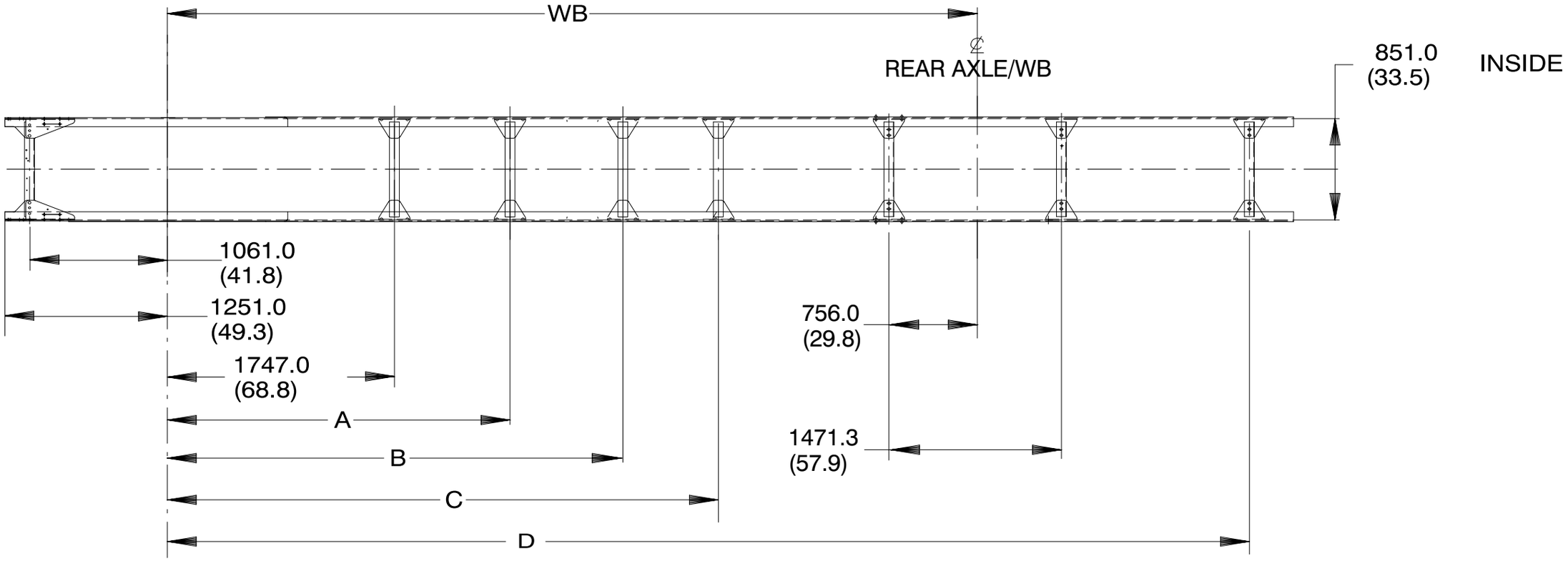
SECTION D–D
FRAME (FD5) & REINFORCEMENT (F08)



SECTION D–D
FRAME (F03) & REINFORCEMENT (F08)

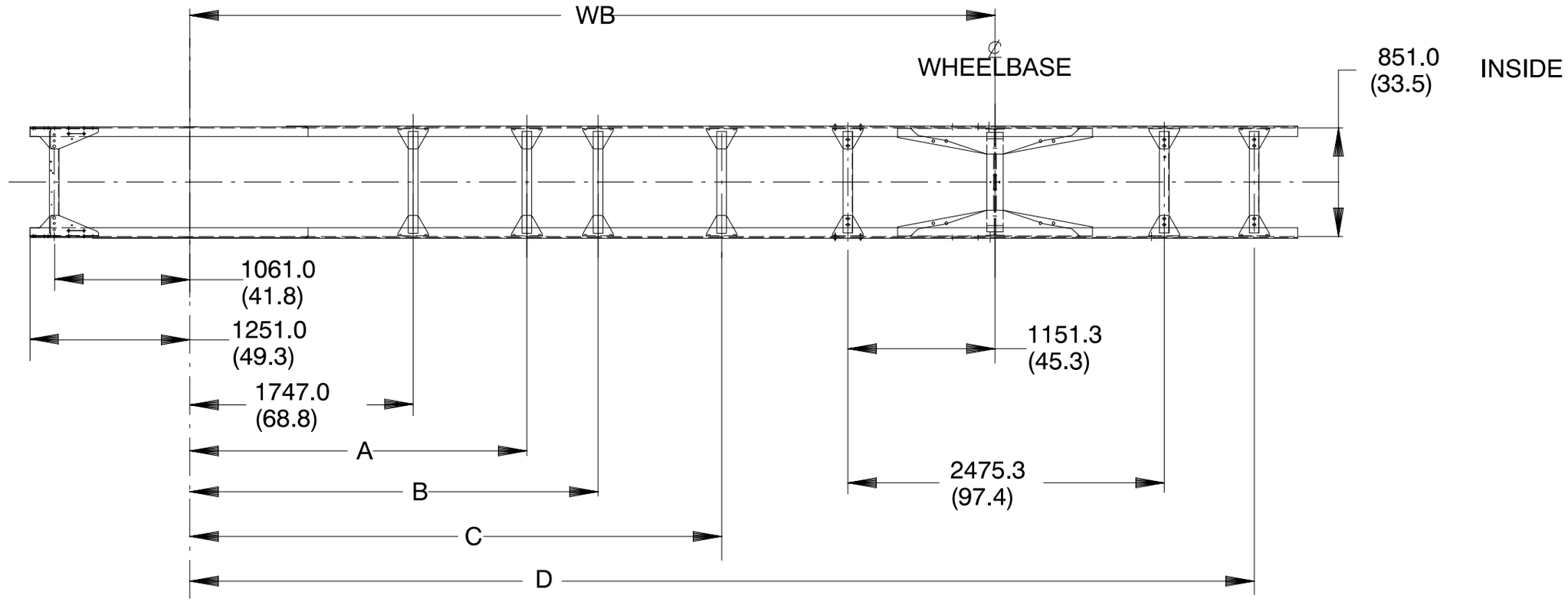
MODEL	WHEELBASE	FRAME	FRAME REINF	FRAME FL W/RQ2
F7B064	EK8 188	FD5/F03	F08	8395.0 (330.5)
	EM2 200	FD5/F03	F08	8700.0 (342.5)
	FPL 218	FD5/F03	F08	9157.0 (360.5)
	EQ8 233	FD5/F03	F08	9538.0 (375.5)
	ES5 248	FD5/F03	F08	9919.0 (390.5)

F6/7B042 Single Axle Frame and Crossmember Arrangement



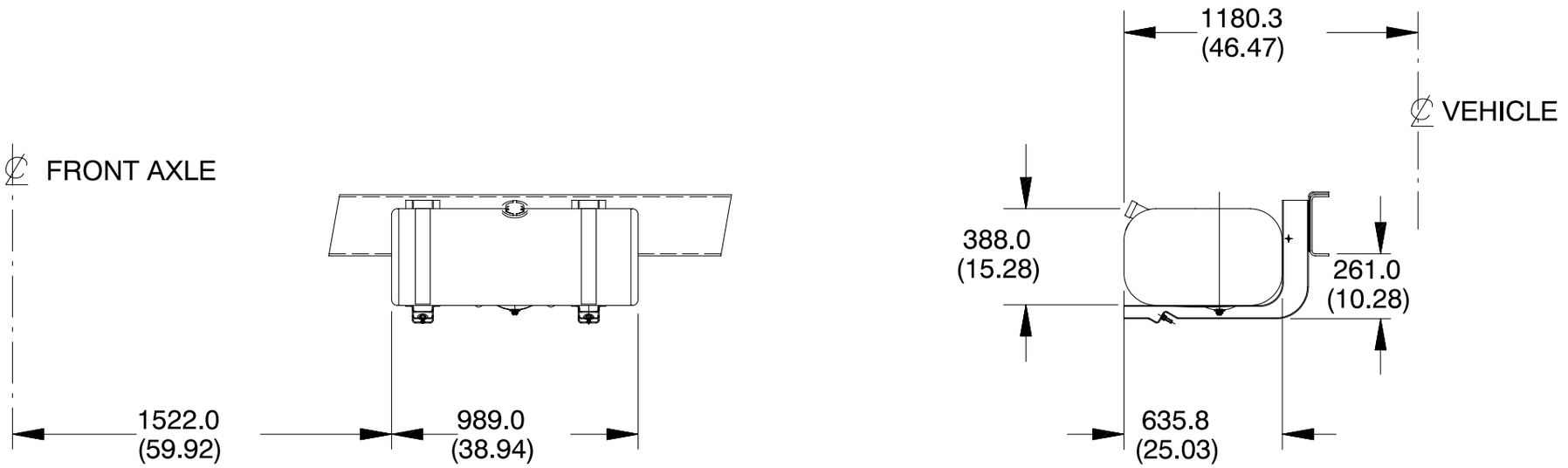
F6/F7B042 CROSSMEMBER CHART				
W/B	A	B	C	D
EC7 134	_____	_____	_____	_____
FQT 140	_____	_____	_____	_____
EG5 158	2637.0 (103.8)	_____	_____	5432.0 (213.9)
EH8 170	2637.0 (103.8)	_____	_____	5737.0 (225.9)
EK8 188	2637.0 (103.8)	_____	_____	6804.0 (267.9)
EM2 200	2942.0 (115.8)	_____	_____	7109.0 (279.9)
FPL 218	2637.0 (103.8)	3399.0 (133.8)	_____	7566.0 (297.9)
EQ8 233	2637.0 (103.8)	3780.0 (148.8)	_____	7947.0 (312.9)
ES5 248	2637.0 (103.8)	3399.0 (133.8)	4161.0 (163.8)	8328.0 (327.9)

F7B064 Tandem Axle Frame and Crossmember Arrangement

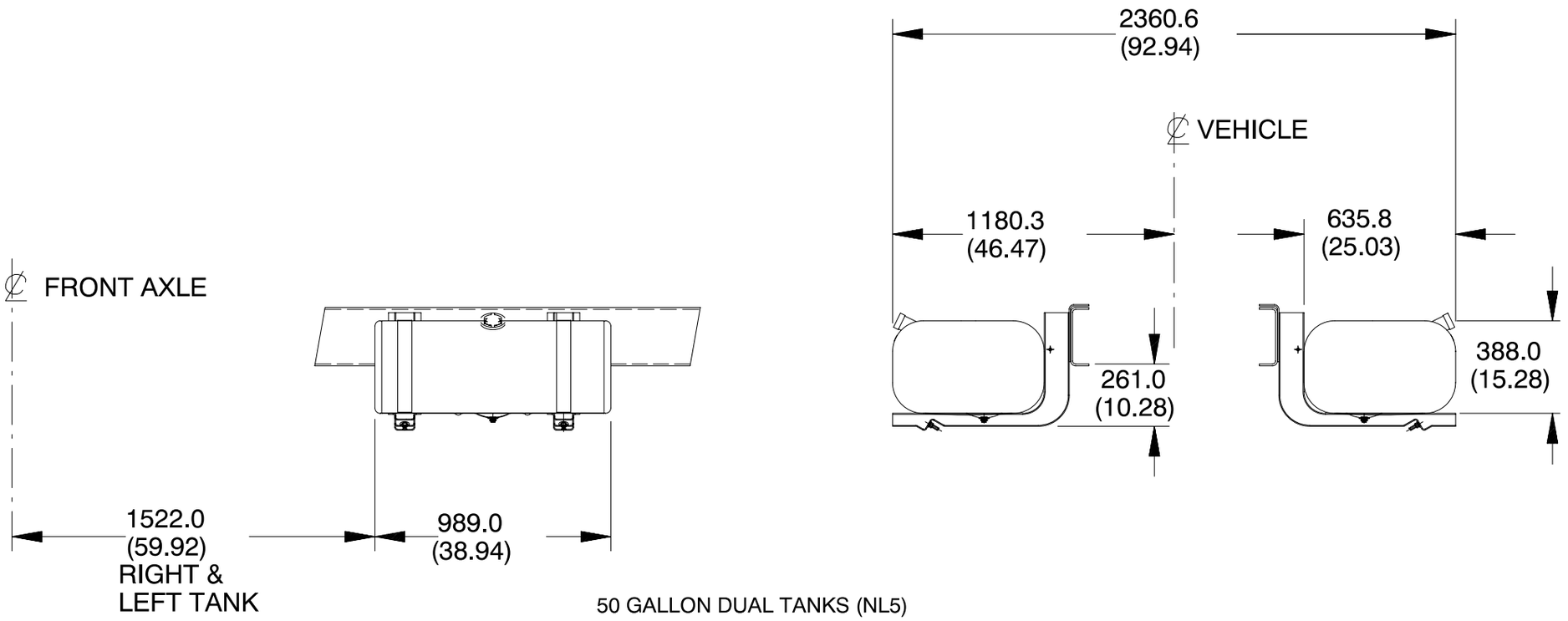


F7B064 CROSSMEMBER CHART					
WB	RPO EK8 188	RPO EM2 200	RPO FPL 218	RPO EQ8 233	RPO ES5 248
A	2637.0 (103.8)	2637.0 (103.8)	2637.0 (103.8)	2942.0 (115.8)	2637.0 (103.8)
B	———	———	3399.0 (133.8)	3780.0 (148.8)	3194.0 (125.7)
C	———	———	———	———	4161.0 (163.8)
D	6804.0 (267.9)	7109.0 (279.9)	7566.0 (297.9)	7947.0 (312.9)	8328.0 (327.9)

F6/7B000 Fuel Tanks

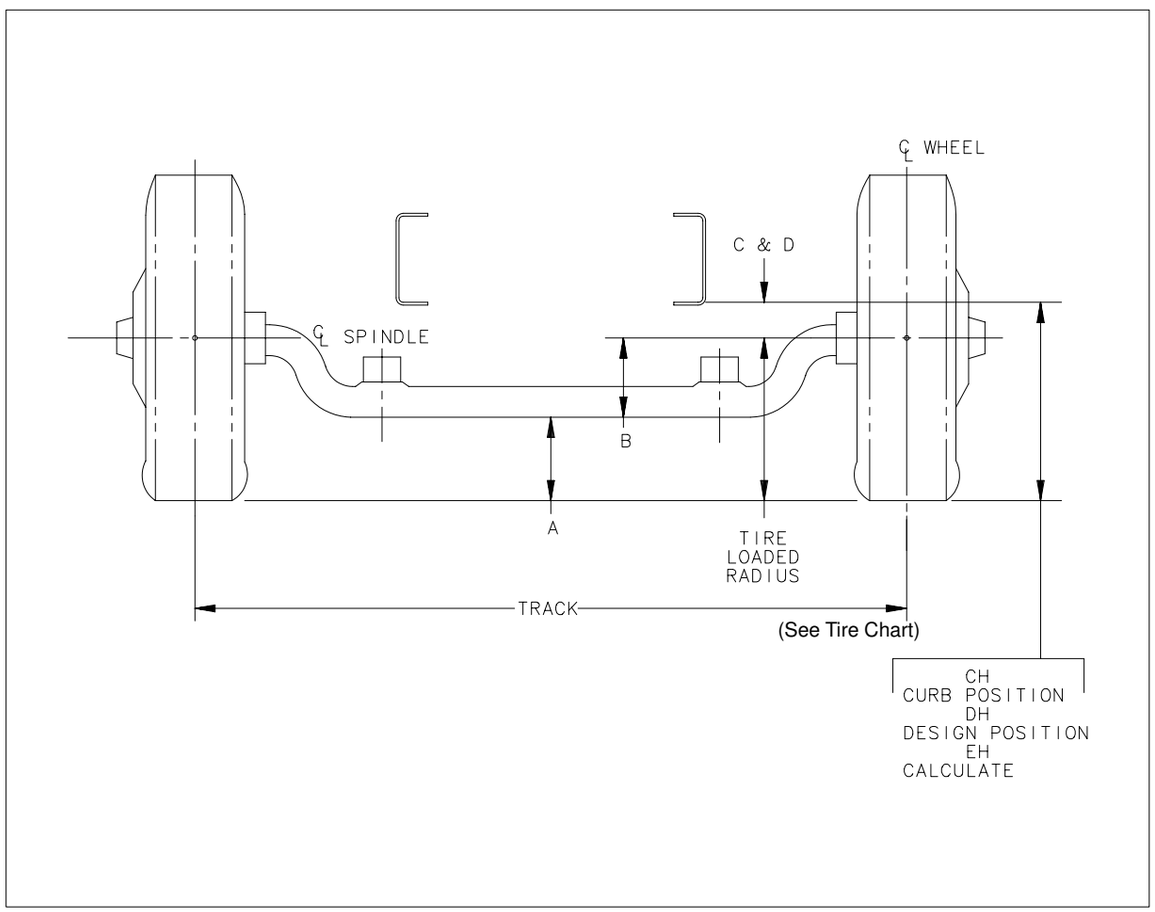


SINGLE L.H. 50 GALLON (NLO)



50 GALLON DUAL TANKS (NL5)

F6/7B000 Front Axle Chart Formula



Formulas for Calculation Height Dimensions

A = Tire loaded radius – B

B = Centerline of axle to bottom of beam

C = Centerline of axle to bottom inside of rail at curb position

D = Centerline of axle to bottom inside of rail at design load

CH = C + Tire loaded radius

DH = D + Tire loaded radius

Track = Wheel offset at spindle. Track at ground will vary with camber angle and tire/wheel combination

F6/7B000 Front Axle Chart, Track Dimension

FRONT AXLE TRACK DIMENSIONS

				AXLES & BRAKES RPO					
				FL1		FL2		FL3	FS7
WHEEL TYPE	WHEEL RPO	WHEEL SIZE	WHEEL OFFSET	JE3	JE4	JE3	JE4	JE4	JE4
DISC	Q82	19.5 X 6.75	5.60	2066.3	———	———	———	———	———
DISC	RPM	19.5 X 6.75	6.50	2091.2	———	———	———	———	———
DISC	QH3	22.5 X 7.5	6.44	2023.4	2020.8	2028.5	2029.8	2021.6	2021.6
DISC	RPQ	22.5 X 8.25	6.62	2017.4	2014.8	2022.6	2023.8	2015.8	2015.8
DISC	RNE	22.5 X 8.25	6.59	———	2038.6	———	2047.6	2039.4	2039.4

F6/7B000 Front Axle Chart, Suspension Dimensions

GMT 540

MODEL	AXLE		SUSPENSION			FRAME	STABILIZER	LOW PROFILE	DIMENSION		
	RPO	CAPACITY	RPO	CAPACITY	RATED	RPO	RPO	RPO	B	C	D
F6B042	FL1	8,100 LBS 3,675 Kg	F12	7,000 LBS 3,175 Kg	7,000 LBS 3,175 Kg	FD0	W/O F59	GPG	186	173	147
						FD5			186	175	149
			F14	8,100 LBS 3,675 Kg	8,100 LBS 3,675 Kg	FD0	F59		186	173	128
						FD5			186	175	130
	FL1	8,100 LBS 3,675 Kg	F12	7,000 LBS 3,175 Kg	7,000 LBS 3,175 Kg	FD0	W/O F59	W/O GPG	186	194	168
						FD5			186	196	170
F6/7B042	FL1	8,100 LBS 3,675 Kg	F14	8,100 LBS 3,675 Kg	8,100 LBS 3,675 Kg	FD0	F59		186	204	159
						FD5			186	206	161
						F03			186	208	163
			F14	8,100 LBS 3,675 Kg	8,100 LBS 3,675 Kg	FD0	W/O F59		186	205	167
						FD5			186	207	169
						F03			186	209	171
			FK9	9,000 LBS 4,080 Kg	8,100 LBS 3,675 Kg	FD0	W/O F59		186	194	163
						FD5			186	196	165
						F03			186	198	167
			F15	9,000 LBS 4,080 Kg	8,100 LBS 3,675 Kg	FD0	F59		186	205	167
						FD5			186	207	169
						F03			186	209	171
			F15	9,000 LBS 4,080 Kg	8,100 LBS 3,675 Kg	FD0	W/O F59		186	199	166
						FD5			186	201	168
						F03			186	203	170

FRONT SUSPENSION

RPO	CAPACITY	TYPE OF SPRING
F12	7,000 LBS (3,175 Kg)	TAPERED LEAF
F14	8,100 LBS (3,675 Kg)	
F15	9,000 LBS (4,090 Kg)	
FK9	9,000 LBS (4,090 Kg)	MULTI – LEAF
F26	12,000 LBS (5,450 Kg)	TAPERED LEAF
FM4	14,000 LBS (6,350 Kg)	
FMO	14,600 LBS (6,610 Kg)	MULTI – LEAF

FRONT AXLE

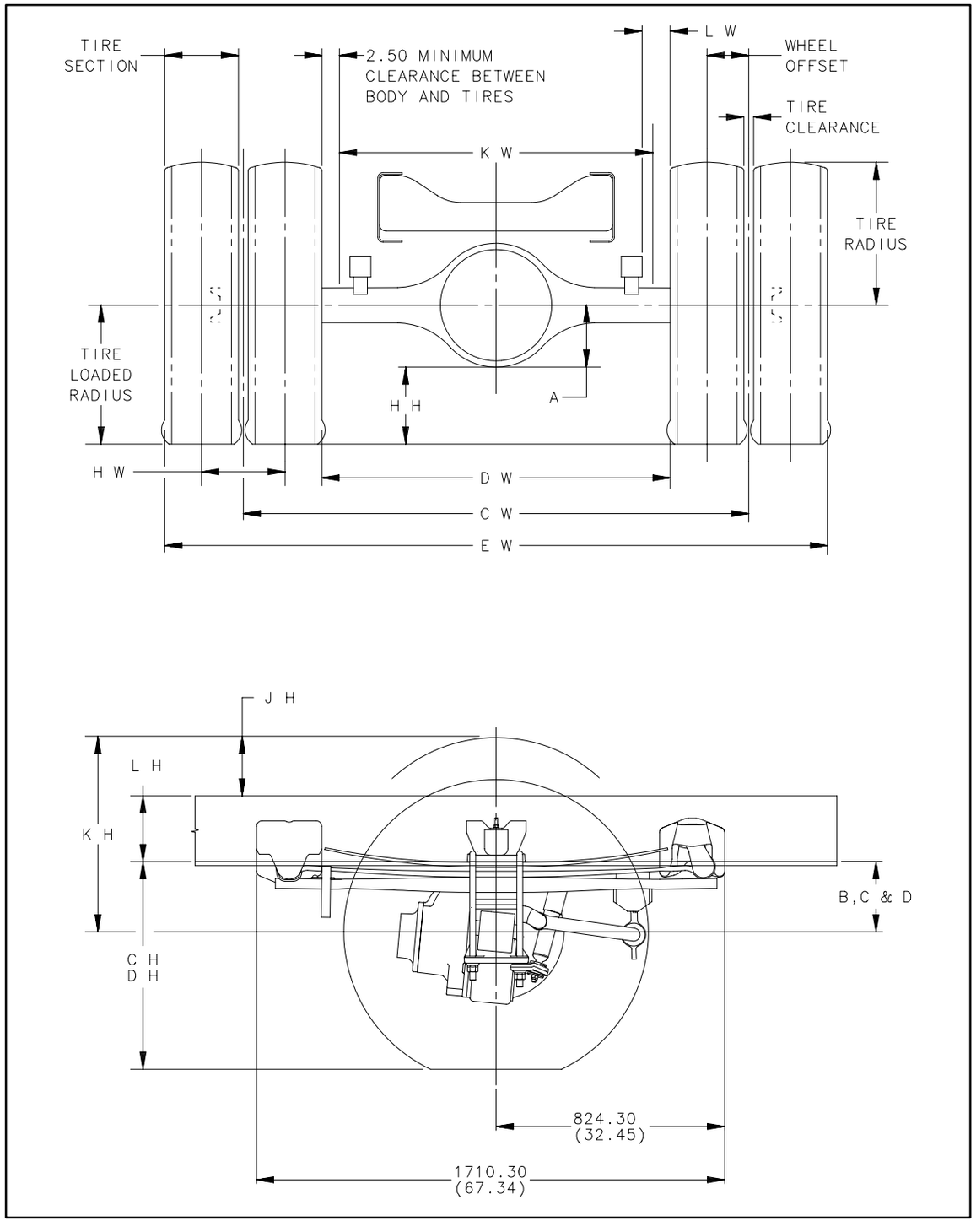
RPO	CAPACITY	BRAKES RPO
FL1	8,100 LBS (3,675 Kg)	JE3 (HYD) OR JE4 (AIR)
FL2	11,000 LBS (5,000 Kg)	
FS7	12,000 LBS (5,450 Kg)	JE4
FL3	14,600 LBS (6,610 Kg)	

F6/7B000 Front Axle Chart, Suspension Dimensions

GMT 540

MODEL	AXLE		SUSPENSION			FRAME	STABILIZER	LOW PROFILE	DIMENSION		
	RPO	CAPACITY	RPO	CAPACITY	RATED	RPO	RPO	RPO	B	C	D
F7B042	FL2	11,000 LBS 5,000 Kg	F15	9,000 LBS 4,080 Kg	9,000 LBS 4,080 Kg	FD0	F59	W/O GPG	220	225	177
						FD5			220	227	179
						F03			220	229	181
			F15	9,000 LBS 4,080 Kg	9,000 LBS 4,080 Kg	FD0	W/O F59		220	219	178
						FD5			220	221	180
						F03			220	223	182
			F26	12,000 LBS 5,443 Kg	11,000 LBS 5,000 Kg	FD0	F59		220	234	168
						FD5			220	236	170
						F03			220	238	172
			F26	12,000 LBS 5,443 Kg	11,000 LBS 5,000 Kg	FD0	W/O F59		220	227	179
						FD5			220	229	181
						F03			220	231	183
	FS7	12,000 LBS 5,443 Kg	F26	12,000 LBS 5,443 Kg	12,000 LBS 5,443 Kg	FD0	F59		220	242	168
						FD5			220	244	170
						F03			220	246	172
			F26	12,000 LBS 5,443 Kg	12,000 LBS 5,443 Kg	FD0	W/O F59		220	237	183
						FD5			220	239	185
						F03			220	241	187
			FM4	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD0	F59		220	247	193
						FD5			220	249	195
						F03			220	251	197
			FM4	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD0	W/O F59		220	236	190
						FD5			220	238	192
						F03			220	240	194
	FL3	14,600 LBS 6,623 Kg	F26	12,000 LBS 5,443 Kg	12,000 LBS 5,443 Kg	FD0	F59		236	242	168
						FD5			236	244	170
						F03			236	246	172
			F26	12,000 LBS 5,443 Kg	12,000 LBS 5,443 Kg	FD0	W/O F59		228	237	183
						FD5			228	239	185
						F03			228	241	187
			FMO	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD0	W/O F59		228	230	168
						FD5			228	232	170
						F03			228	234	172
			FM4	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD0	F59		228	247	170
						FD5			228	249	172
						F03			228	251	174
			FM4	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD0	W/O F59		228	236	170
						FD5			228	238	172
						F03			228	240	174
F7B064	FL3	14,600 LBS 6,622 Kg	FMO	14,600 LBS 6,623 Kg	14,600 LBS 6,623 Kg	FD5	W/O F59		228.5	232	170
						F03			228.5	234	172

F6/7B042 Rear Axle Chart Formula



Definitions:

A – Centerline of axle to bottom of axle bowl

B – Centerline of axle to bottom inside rail at inf. bump.

C – Centerline of axle to bottom inside rail at curb pos.

D – Centerline of axle to bottom inside rail at design load

CH – Rear Frame Height
Distance between the bottom inside rail and the ground–line through the vertical centerline of the rear axle at curb position.

DH – Rear Frame Height
Distance between the bottom inside rail and the ground–line through the vertical centerline of the rear axle at design position.

HH – Rear Axle Clearance
Minimum clearance between the rear axle and the ground–line.

JH – Rear Tire Clearance
Minimum clearance required for tires and chains measured from the top of the frame at the vertical centerline of the rear axle.

KH – Chain Clearance

LH – Distance from the bottom inside rail to the top of rail.

CW – Track Dual Wheel Vehicles
Distance between the centerlines of the dual wheels as measured at the ground–line.

DW – Minimum distance between the inner surfaces of the rear tires.

EW – Maximum Rear Width
Over–all width of vehicle measured at the outer most surface of the rear tires.

HW – Dual Tire Spacing
Distance between the centerlines of the tires in a set of dual tires.

KW – Rear Body Width
Maximum body width between rear tires.

See Tire Chart for values: Selection, Radius, Loaded Radius and Clearance

Formulas for calculating rear width and height dimensions:

CH = Tire loaded radius + C + L H
DH = Tire loaded radius + D + L H
HH = Tire loaded radius – A
JH = K H – B – L H
KH = Tire radius + 3.00 inches
CW = Track
DW = Track – 1 Tire section – H W
EW = Track + 1 Tire section + H W
KW = D W – 5.00 inches
LW = 1.00 inch minimum clearance between tires and springs

NOTE: Track and overall width may vary with optional equipment.

F6/7B042 Rear Axle Chart, Suspension Dimensions

Rear Suspensions		
RPO	**Capcaity**	**Type of Spring**
GQO	15,000 lbs. (6,800 Kg)	Tapered Leaf
GGO	15,000 lbs. (6,800 Kg)	Multi-Leaf
GG7	16,900 lbs. (7,670 Kg)	Tapered Leaf
GN2	19,000 lbs. (8,620 Kg)	Tapered Leaf
GNO	19,000 lbs. (8,620 Kg)	Multi-Leaf
G40	19,000 lbs. (8,620 Kg)	Air Ride
GR9	21,000 lbs. (9,525 Kg)	Tapered Leaf
GN8	21,000 lbs. (9,525 Kg)	Multi-Leaf
GPO	23,000 lbs. (10,430 Kg)	Tapered Leaf
GP1	23,000 lbs. (10,430 Kg)	Multi-Leaf

Rear Axles						Brakes
RPO	**Capacity**	**Manufacturer & Number**		**Speed**	**A**	**RPO**
H08	15,000 lbs.	Dana	S150-S	Single	215.8	JE3
H10	15,000 lbs.	Eaton	15040S	Single	215.0	JE3
HWY	16,900 lbs.	Eaton	19050S	Single	224.0	JE3
HZT	17,850 lbs.	Eaton	19050T	Two	242.8	JE3/JE4
HZW	17,850 lbs.	Eaton	19050S	Single	224.0	JE3/JE4
H11	19,000 lbs.	Eaton	19050S	Single	224.0	JE3/JE4
HPK	19,000 lbs.	Eaton	19060S	Single	234.7	JE3/JE4
HPM	19,000 lbs.	Eaton	19060T	Two	263.0	JE3/JE4
HPP	21,000 lbs.	Eaton	21060S	Single	234.7	JE3/JE4
H15	21,000 lbs.	Eaton	21060T	Two	263.0	JE3/JE4
HPH	22,000 lbs.	Eaton	22060T	Two	263.0	JE4
HPG	22,000 lbs.	Eaton	22060S	Single	234.7	JE4
HPQ	23,000 lbs.	Eaton	23080S	Single	259.8	JE4
H20	23,000 lbs.	Eaton	23080T	Two	272.8	JE4
HNA	23,000 lbs.	Eaton	23105S	Single	279.1	JE4

F6/7B000 Rear Axle Chart, Track Dimensions

REAR AXLE TRACK DIMENSIONS							
MODEL	BRK	AXLE	WHEEL				
			QH4	RPR	RNF	Q83	RPW
F6BO42	JE3	HO8	1833.4	NA	NA	1836.5	1833.4
		H10					
		HWY	NA			1821.3	1821.3
F6/7B042	JE3	HZW	1817.9	1821.0	1817.9	NA	
		HZT					
		H11					
F7B042		HPM					
		HPK					
		H15	1815.0	1818.2	1815.0		
		HPP					
F6/7B042	JE4	HZW	1824.1	1827.2			
		HZT					
		H11					
F7B042		HPM					
		HPK					
		H15	1829.3	1832.4			
		HPP					
F7B042	JE4	HPG					
		HPH					
		HNA					
		HPQ					
		H20					
F7B064	JE4	HPE					

F6/7B000 Rear Axle Chart, Suspension Dimensions

F6B042

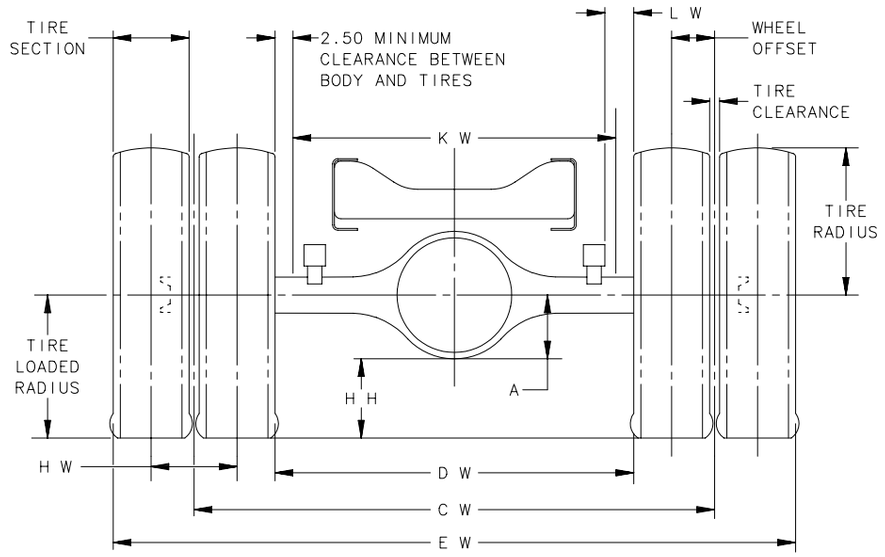
AXLE		SUSPENSION		FRAME	SHOCK ABSORBER	STABILZER	AUX SPRING	DIMENSIONS		
RPO	CAPACITY	RPO	CAPACITY	RPO	RPO	RPO	RPO	B	C	D
HO8 H10	15,000 LBS (6,800 Kg)	GQ0	15,000 LBS (6,800 Kg)	FDO FD5	G68 OR W/O G68	GN1	W/O G60	105.4	251.7	169.7
						GN1 OR W/O GN1	G60	105.4	251.7	177.7
		GG0			G68			123.5	277.7	197.9
		GG7	16,900 LBS (7,666 Kg)				W/O G60	123.5	277.7	194.0
							G60	–	–	–
		GN2	19,000 LBS (8,620 Kg)				W/O G60	62.6	176.3	128.1
								110.6	267.0	196.4
		GN0			G68 OR W/O G68		G60	110.6	266.9	200.4
								146.5	300.6	235.7
							W/O G60	146.5	300.7	232.2
HWY	16,900 LBS (7,670 Kg)	GG7	16,900 LBS (7,666 Kg)		G68		G60	–	–	–
							W/O G60	65.6	179.3	125.4
		GN2	19,000 LBS (8,620 Kg)			GN1		113.6	269.9	194.5
						GN1 OR W/O GN1	G60	113.6	269.9	200.4
		GN0			G68 OR W/O G68			129.5	283.6	214.7
							W/O G60	129.6	283.7	210.5
HZT HZW	17,850 LBS (8,100 Kg)	G40	19,000 LBS (8,620 Kg)		———	———	———	134.1	210.8	210.8
		GN0			G68 OR W/O G68	GN1 OR W/O GN1	W/O G60	129.6	283.7	207.2
							G60	129.6	283.7	212.0
		GN2			G68			113.6	269.9	196.6
						GN1	W/O G60	113.6	269.9	189.6
H11	19,000 LBS (8,620 Kg)	GNO	19,000 LBS (8,620 Kg)		G68 OR W/O G68	GN1 OR W/O GN1		129.5	283.7	203.0
							G60	129.5	283.7	208.5
		GN2			G68		W/O G60	113.6	269.9	183.6
						GN1	G60	112.9	285.6	190.6
		G40			———	———	———	134.1	210.8	210.8

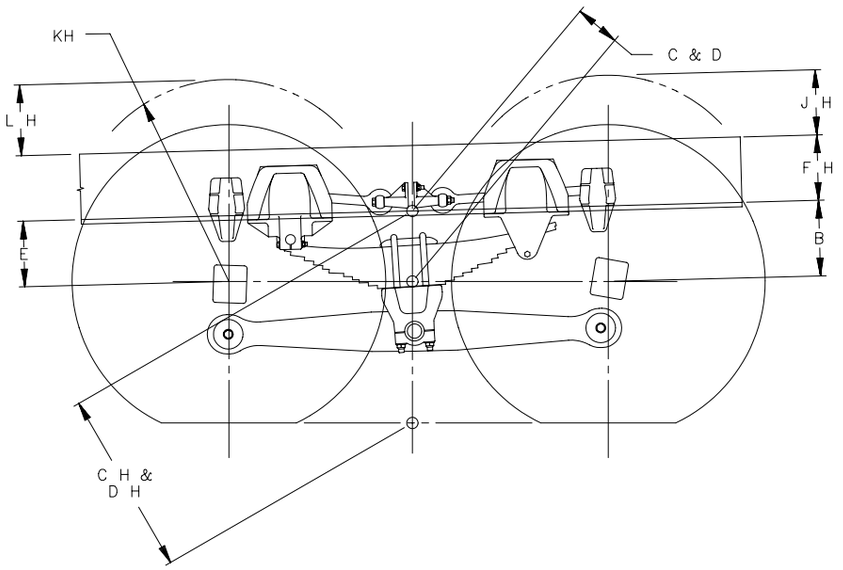
F6/7B000 Rear Axle Chart, Suspension Dimensions

F7B042

AXLE		SUSPENSION		FRAME	SHOCK ABSORBER	STABILZER	AUX SPRING	DIMENSIONS		
RPO	CAPACITY	RPO	CAPACITY	RPO	RPO	RPO	RPO	B	C	D
HZT HZW	17,850 LBS (8,100 Kg)	G40	19,000 LBS (8,620 Kg)	FDO FD5 F03	———	———	———	134.5	211.2	211.2
		GN0			G68 OR W/O G68	GN1 OR W/O GN1	W/O G60	129.6	283.7	207.2
							G60	129.6	283.7	212.0
		GN2			G68	GN1	W/O G60	113.6	269.9	189.6
						GN1 OR W/O GN1	G60	113.6	269.9	196.6
HPK HPM H11	19,000 LBS (8,620 Kg)	GNO	19,000 LBS (8,620 Kg)		G68 OR W/O G68		W/O G60	129.5	283.7	203.0
							G60	129.5	283.7	208.5
		GN2			G68	GN1	W/O G60	113.6	269.9	183.6
						GN1 OR W/O GN1	G60	112.9	285.6	190.6
		G40			———	———	———	134.5	211.2	211.2
		GN8	21,000 LBS (9,525 Kg)		G68 OR W/O G68	GN1 OR W/O GN1	W/O G60	132.0	288.4	207.0
							G60	132.1	288.4	212.0
		GR9			G68		W/O G60	119.1	275.4	196.2
							G60	119.0	275.4	202.1
		GPO	23,000 LBS (10,430 Kg)		G68		W/O G60	115.3	271.6	197.9
							G60	115.3	271.6	201.9
		GP1	23,500 LBS (10,750 Kg)		G68 OR W/O G68		W/O G60	153.1	311.3	233.9
							G60	153.1	311.3	237.6
HPP H15	21,000 LBS (9,525 Kg)	GN8	21,000 LBS (9,525 Kg)				W/O G60	132.9	288.6	201.0
							G60	132.7	288.4	206.8
		GR9			G68		W/O G60	119.1	275.4	189.0
							G60	119.1	275.4	196.3
		GPO	23,000 LBS (10,430 Kg)		G68	GN1	W/O G60	115.3	271.6	191.5
						GN1 OR W/O GN1	G60	115.9	272.2	197.2
		GP1	23,500 LBS (10,750 Kg)		G68 OR W/O G68		W/O G60	153.1	311.3	228.7
							G60	153.1	311.3	233.1
HPG HPH	22,000 LBS (10,000 Kg)	GPO	23,000 LBS (10,430 Kg)		G68	GN1	W/O G60	115.3	271.6	188.0
						GN1 OR W/O GN1	G60	115.3	271.6	193.7
		GP1	23,500 LBS (10,750 Kg)		G68 OR W/O G68		W/O G60	153.1	311.3	225.8
							G60	153.1	311.3	230.6
HNA HPQ H20	23,000 LBS (10,430 Kg)	GPO	23,000 LBS (10,430 Kg)		G68	GN1	W/O G60	120.3	276.6	190.2
						GN1 OR W/O GN1	G60	120.2	276.6	196.3
		GP1	23,500 LBS (10,750 Kg)		G68 OR W/O G68		W/O G60	158.1	316.3	228.5
							G60	153.2	316.3	233.7

F7B064 Tandem Axle Chart Formula





Definitions:

A – Centerline of axle to bottom of axle bowl

B – Centerline of rear axle to bottom inside rail at metal to metal position

C – Centerline of axle to bottom inside rail at centerline of equalizer beam at curb position

D – Centerline of axle to bottom inside rail at centerline of equalizer beam at design position

E – Centerline of front axle to bottom inside rail at metal to metal position

CH – Rear Frame Height
Distance between the bottom inside rail and the ground–line through the vertical centerline of the rear axle at curb position.

DH – Rear Frame Height
Distance between the bottom inside rail and the ground–line through the vertical centerline of the rear axle at design position.

HH – Rear Axle Clearance
Minimum clearance between the rear axle and the ground–line.

JH – Rear Tire Clearance
Minimum clearance required for tires and chains measured from the top of the frame at the vertical centerline of the rear axle.

KH – Chain Clearance

LH – Distance from the bottom inside rail to the top of rail.

CW – Track Dual Wheel Vehicles
Distance between the centerlines of the dual wheels as measured at the ground–line.

DW – Minimum distance between the inner surfaces of the rear tires.

EW – Maximum Rear Width
Over–all width of vehicle measured at the outer most surface of the rear tires.

HW – Dual Tire Spacing
Distance between the centerlines of the tires in a set of dual tires.

KW – Rear Body Width
Maximum body width between rear tires.

See Tire Chart for values: Selection, Radius, Loaded Radius and Clearance

Formulas for calculating rear width and height dimensions:

CH = Tire loaded radius + C + L H

DH = Tire loaded radius + D + L H

HH = Tire loaded radius – A

JH = K H – B – L H

KH = Tire radius + 3.00 inches

CW = Track

DW = Track – 1 Tire section – H W

EW = Track + 1 Tire section + H W

KW = D W – 5.00 inches

LW = 1.00 inch minimum clearance between tires and springs

NOTE: Track and overall width may vary with optional equipment.

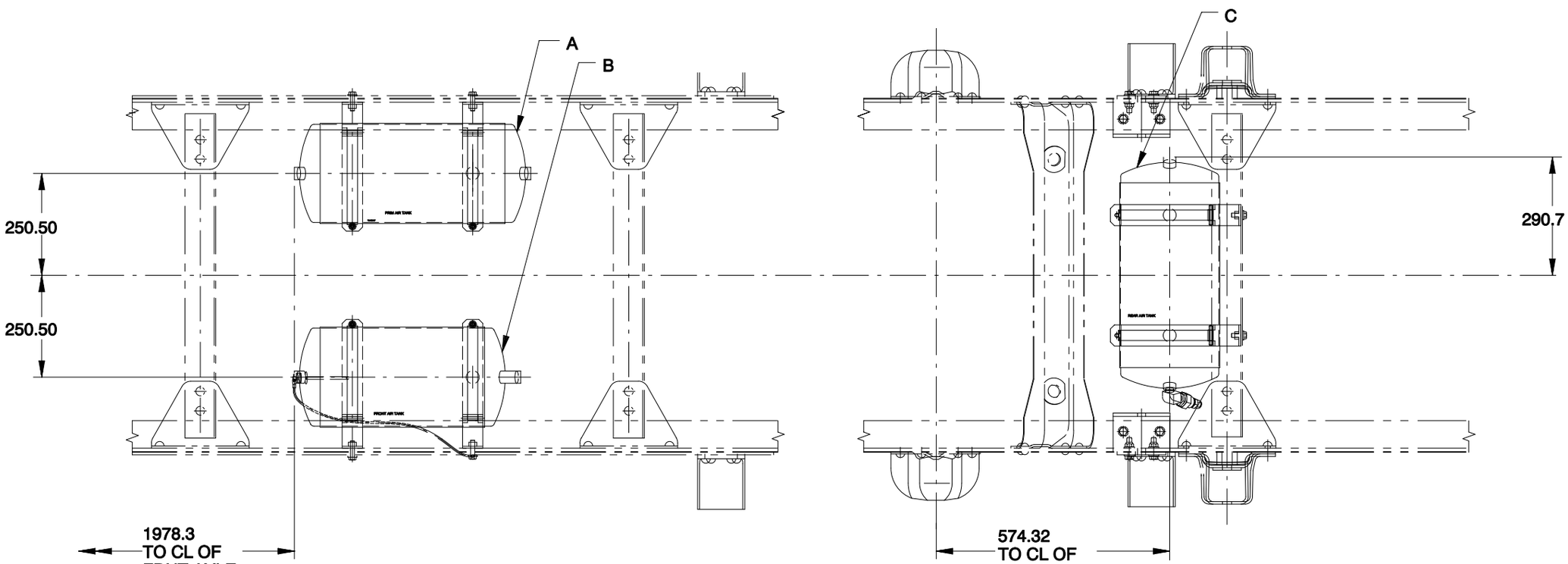
F7B064 Tandem Axle Chart, Suspension Dimensions

TANDEM REAR AXLE					
RPO	CAPACITY	MFG.& NO.		SPEED	DIM.”A”
HPE	40,000 LBS	EATON	DS404	SINGLE	234.7

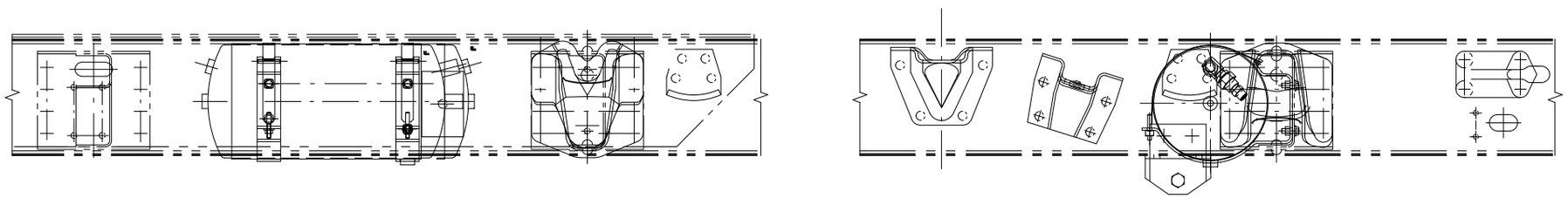
TANDEM REAR SUSPENSIONS					
RPO	CAPACITY	MFG.& NO.		BUSHING	BEAMS
GNS	40,000 LBS	HENDRICKSON	RT400	RUBBER	52 INCH
GPR	40,000 LBS	HENDRICKSON	RTE400	BRONZE	52 INCH

AXLE		SUSPENSION		FRAME	DIMENSIONS				
RPO	CAPACITY	RPO	CAPACITY	RPO	B	C	D	E	
HPE	40,000 LBS (18,141 Kg)	GNS	40,000 LBS (18,141 Kg)	FD5 FO2	212.6	288.4	268.9	164.1	W/O JXD
								183.3	W/JXD
		GPR	40,000 LBS (18,141 Kg)		172.4	285.5	251.1	164.6	W/O JXD
								183.7	W/JXD

F7B042 w/RO2 Truck Application

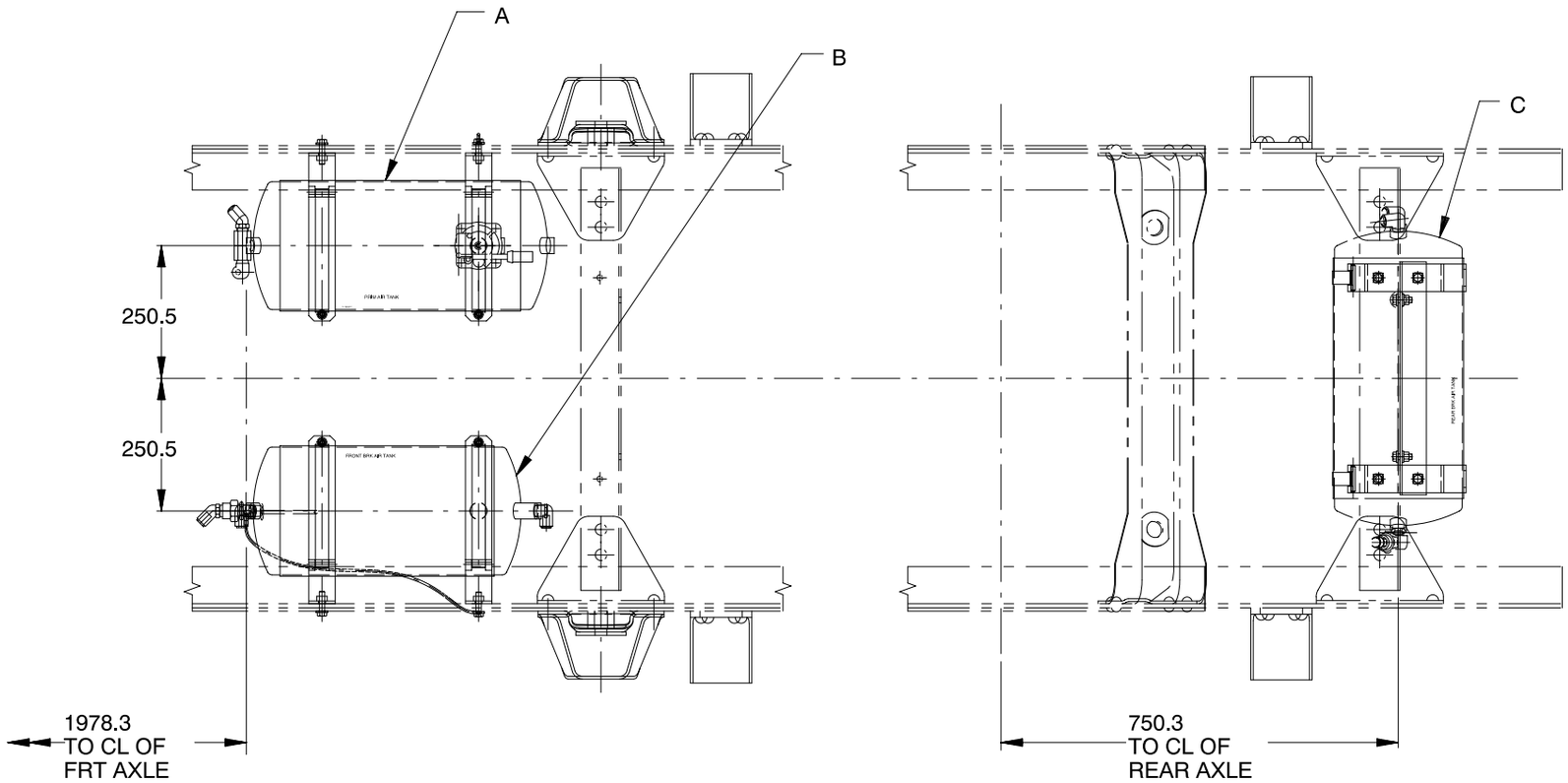


F6/7B042 &RQ2

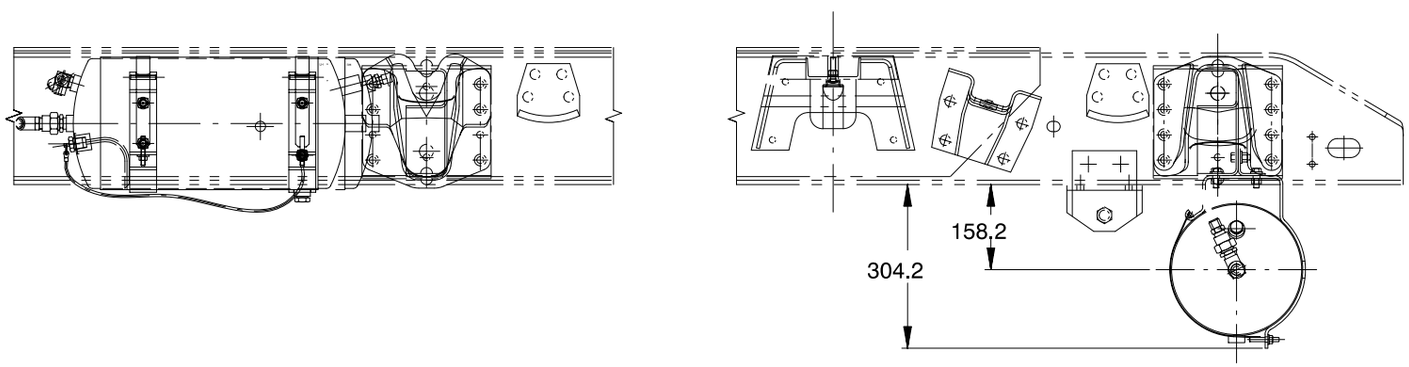


TANK	VOLUME CU CM	VOLUME CU IN	LENGTH	DIA.
A	23,683	1445	556.0	245.7
B	21,356	1303	506.0	245.7
C	23,683	1445	556.0	245.7

F7B042 w/RQ3 Tractor Application

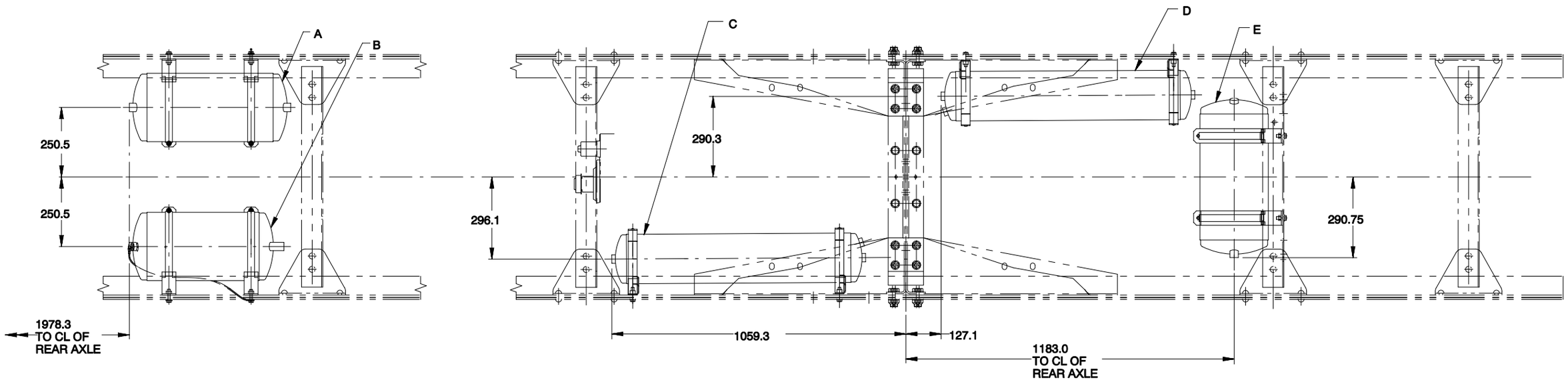


F6/7B042 &RQ3 W/O JTT

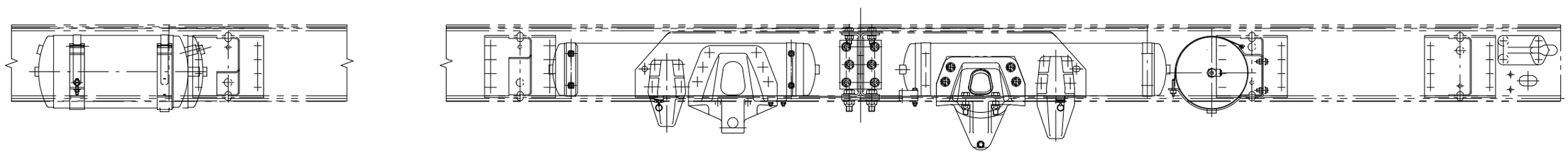


TANK	VOLUME CU CM	VOLUME CU IN	LENGTH	DIA.
A	23,683	1445	556.0	245.7
B	21,356	1303	506.0	245.7
C	23,683	1445	556.0	245.7

F7B064 w/RQ2 Truck Application

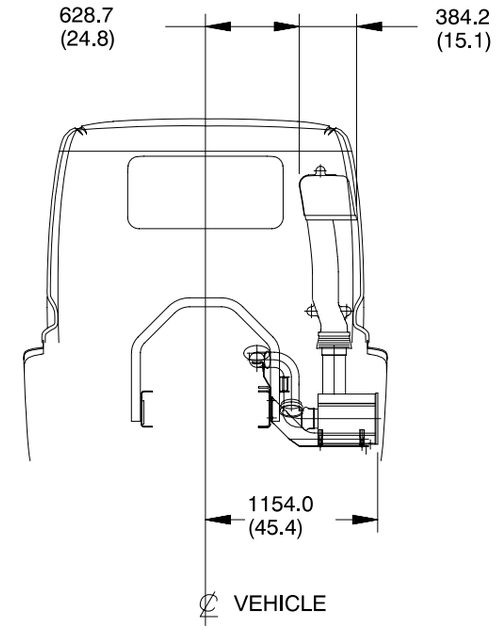


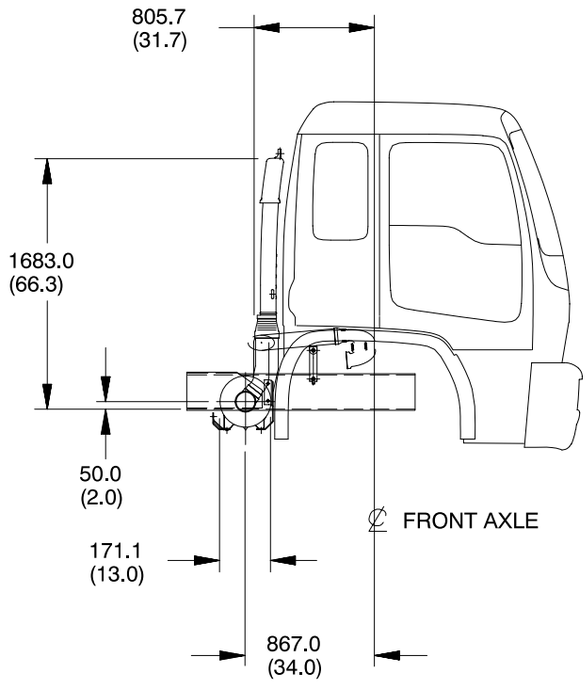
F7B064 &RQ2



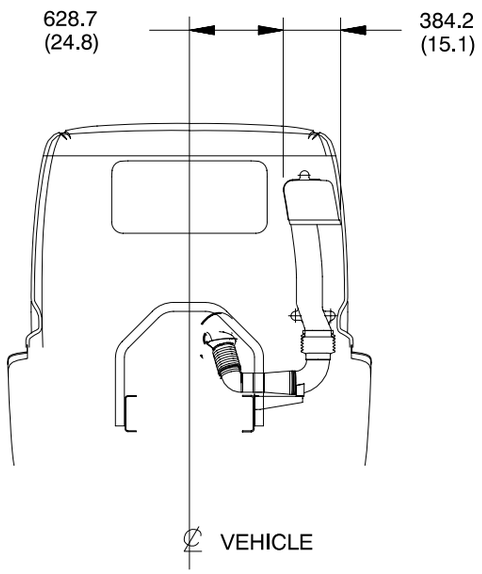
TANK	VOLUME CU CM	VOLUME CU IN	LENGTH	DIA.
A	23,683	1445	556.0	245.7
B	21,356	1303	506.0	245.7
C	20,143	1229	889.0	178.2
D	20,143	1229	889.0	178.2
E	23,683	1445	556.0	245.7

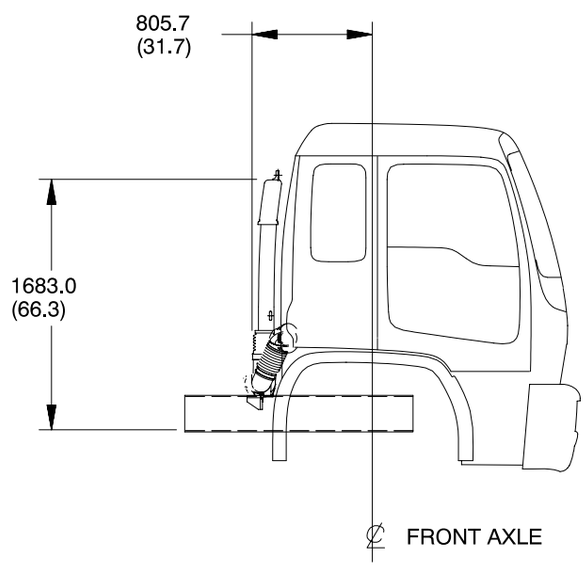
F6/7B000 Air Induction





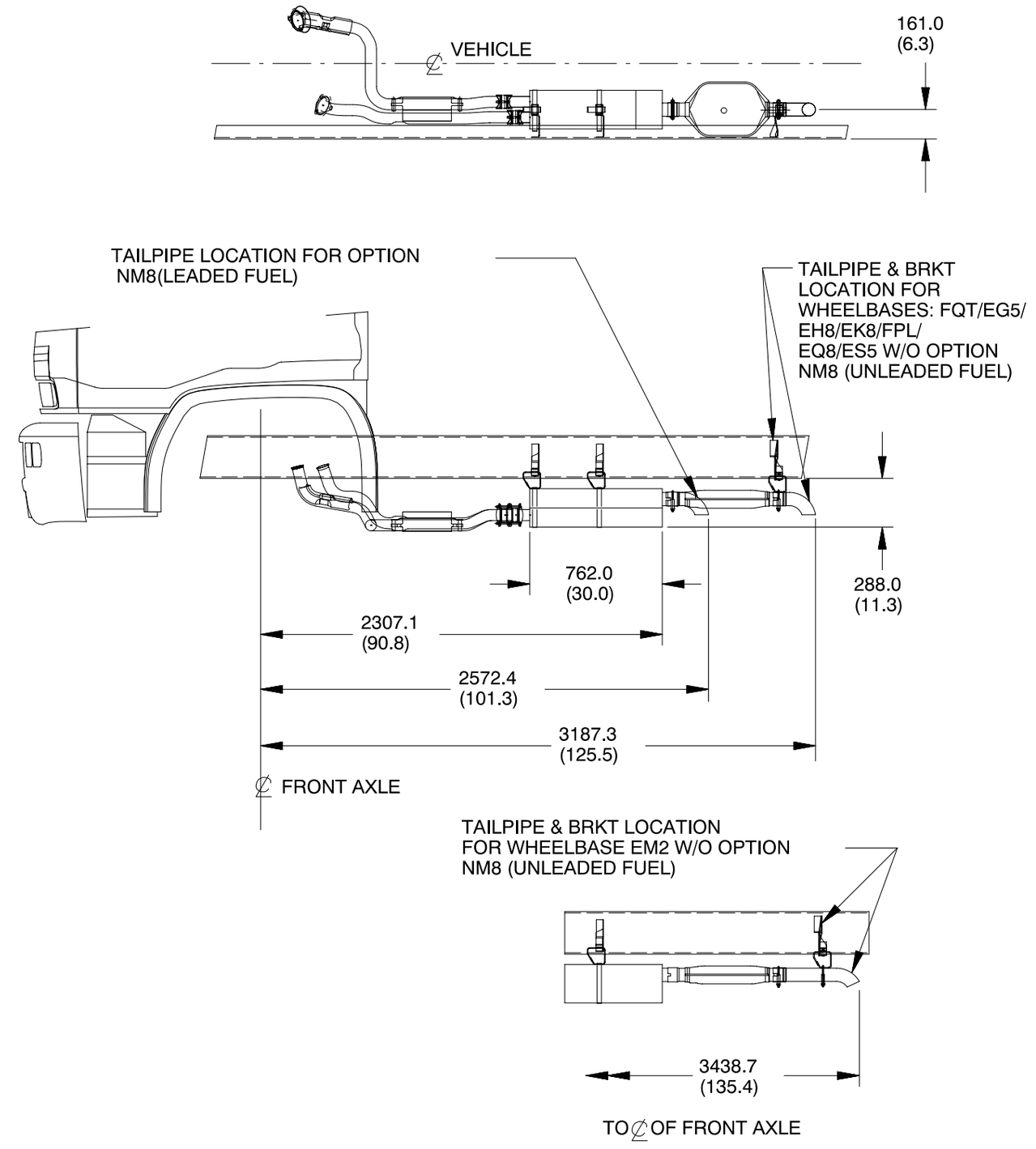
F6/F7B000 (LXO/LN4) DIESEL ENGINES





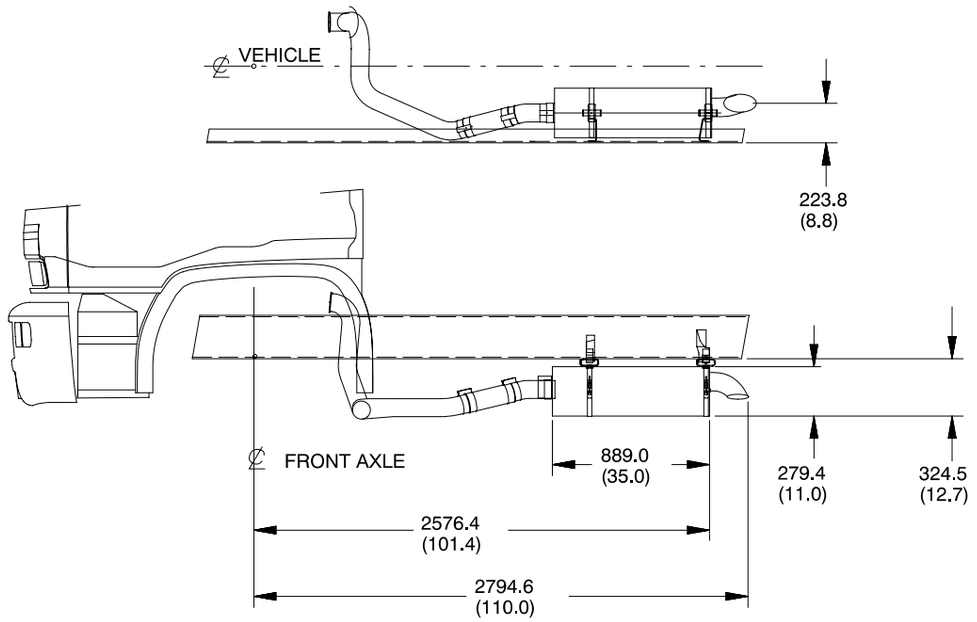
F6/F7B000 (LS0) GASOLINE ENGINE

F6/7B000 Gas Engine, Option LSO

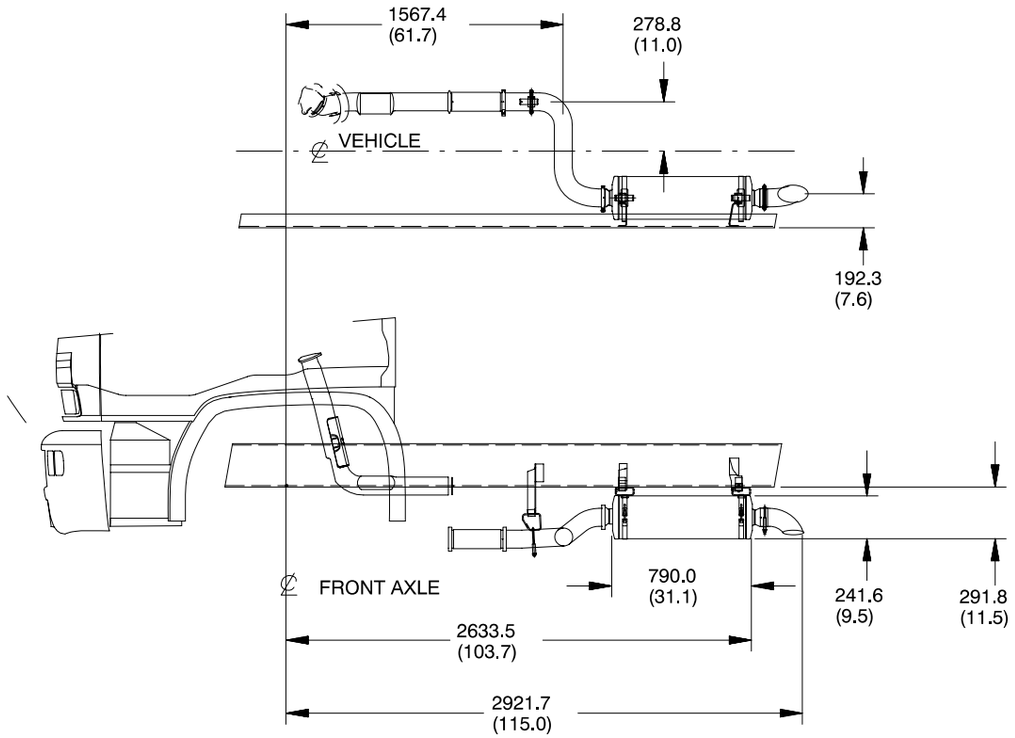


F6/F7B000 GAS ENGINE,OPTION NB5

F6/7B000 Diesel Engine, Option LXO & LN4



F6/F7B000 (LXO) DIESEL ENGINE,EXHAUST OPTION NB5



F6/F7B000 (LN4) DIESEL ENGINE,EXHAUST OPTION NB5